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May 24, 2013

Kimberly N. Tisa
Region 1 PCB Coordinator
U.S. Environmental Protection Agency New England
5 Post Office Square, Suite 100
Mail Code: OSRR07-2
Boston, MA. 02109-3912

RE: Self- Implementation PCB Remediation Plan
Demolition of Remaining Portion of
Former Salem State University Library
360 Lafayette Street, Salem, Massachusetts

Dear Ms. Tisa:

The Division of Capital Asset Management and Maintenance (DCAMM) is pleased to submit our Self-Implementation Plan (SIP) for the above referenced Site. The attached SIP provides detailed information regarding PCB characterization activities, as well as, the scope of the proposed PCB remediation and demolition activities.

If you have any questions or concerns regarding the demolition, or if we may be of additional assistance regarding the project, please do not hesitate to contact Mark Swingle at 617-727-4030 ext. 474.

Sincerely,
Division of Capital Asset Management and Maintenance

Mark Swingle, Project Manager

Cc: A. Soll (Salem State University), w/attachment
B. Novak(DCAMM) w/o attachment
J. O'Donnell, P.E. , LSP, Deputy Director

SELF-IMPLEMENTATION PCB REMEDIATION PLAN ADDENDUM

PHASE 2 DEMOLITION

SALEM STATE LIBRARY

SALEM STATE UNIVERSITY
352 LAFAYETTE STREET
SALEM, MASSACHUSETTS

Prepared For:

Kimberly N. Tisa
Region 1 PCB Coordinator
U.S. Environmental Protection Agency New England
5 Post Office Square, Suite 100
Mail Code: OSRR07-2
Boston, MA 02109-3912

Prepared By:

Division of Capital Asset Management
1 Ashburton Place, 15th Floor
Boston, MA 02108

May 23, 2012

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1.0 BACKGROUND

This Self Implementation Plan Addendum covers the dismantling and demolition of the remaining structure of the Library at Salem State University's North Campus. The Library (Site) is located at 360 Lafayette Street and the mailing address for all correspondence is 352 Lafayette Street, which is the University's Administration Building. This project title is the "Phase 2 Demolition Project." The work covered by this Addendum compliments and completes the work outlined in the Cost Removal Alternative Study Program Plan dated February 11, 2011, which was modified on April 4, 2011 and approved by EPA on April 13, 2011, as well as, the Phase 1 Demolition Plan dated April 22, 2011. EPA approved the Phase 1 Demolition Plan under a "Performance Based Disposal" as outlined in 40 CFR 761.61(b) and 761.62(a). This Addendum also amends the April 4, 2011 Plan to allow for removal and disposal of PCB-bulk product waste in accordance with the PCB Bulk Product Waste Re-interpretation issued by the EPA on October 24, 2012.

During the Phase 2 Demolition Project, the remaining portion of the Library structure, the foundation, and associated footings will be demolished to make way for construction of a new science building (see Figure 1, Site Locus Plan; Figure 2, Site Plan; and Figure 3, Building Phase Plan in Appendix A). The Library building Floor Plans and Building Elevations are presented in Figures P-1 through P-10 in Appendix A. This Addendum is prepared specifically to address the existing masonry within the Phase 2 Area of the building, structural concrete pieces stored within the building during the Phase 1 Demolition Project, structural concrete components of the remaining Phase 2 Area of the building, windows, doors, and frames impacted by PCB-containing caulk, PCB-containing parging/mastic at the relieving angles under the brick veneer, as well as, other PCB-impacted materials present within the Library.

Environmental Monitoring and Quality Assurance and Quality Control will be conducted in accordance with the original April 4, 2011 SIP. These programs are summarized in the attached Tables 9 and 10. Copies of the Owner and Responsible Remediation Party Certifications are presented in Appendix C and copies of the State and Local Regulatory Notifications are presented in Appendix E.

2.0 SCOPE OF WORK

The Scope of Work for this Addendum is to demolish the remaining portion of the Library, the Phase 2 Area, as depicted on Figure 3 in Appendix A. The proposed remediation program is described in more detail below and additional specifics are provided in the Contractor's work plan, attached in Appendix B.

2.1 Caulk and Backer Rod

A total of approximately 35,000 linear feet of PCB-containing caulk and associated "backer rod" on the interior and exterior of the building will be removed and disposed as PCB bulk product waste at a permitted landfill in accordance with 40 CFR 761.62(a). Where feasible, caulk will be removed and packaged along with the adjacent masonry material classified as PCB-bulk product waste under 40 CFR 761.62(a). In instances

where PCB-containing caulk that is adhered to metal materials such as copper roof and window flashing, window/door frames, louvers, roof vents, plaster ceiling supports, exterior plaster overhang frames, etc., the entire piece of metal material will be disposed as PCB-contaminated at a permitted landfill in accordance with 40 CFR 761.62(a). No decontamination of metal materials will be conducted under the scope of this Addendum.

Perimeter window caulking, caulk on metal roof flashing, and caulk on roof vents also contains greater than one percent asbestos and is thus subject to additional federal and state regulations specific to removal/disposal of asbestos-containing materials (ACM). These materials will be disposed at a facility permitted to accept materials that contain both PCBs and asbestos.

2.2 Window and Door Frames

Windows, window frames, glass doors, and door frames on the interior and exterior of the building that have been caulked with PCB-containing caulk and glazing will be disposed as PCB bulk product waste at a permitted landfill in accordance with 40 CFR 761.62(a). A total of approximately 477 windows/frames and 37 doors/frames will be removed during the project. Other metal materials such as supports, brackets, fasteners, wiring, etc. that are in contact with PCB-containing caulk will be removed and disposed as PCB-contaminated at a permitted landfill in accordance with 40 CFR 761.62(a). Metal window and door frames will be sized, as necessary, to meet the requirements of the disposal facility selected by the Contractor. No metal decontamination will be conducted during this project.

Special Circumstances:

Window caulking and glazing materials also contain greater than one percent asbestos and are thus subject to additional federal and state regulations specific to removal/disposal of ACM. These materials will be disposed at a facility permitted to accept materials that contain both PCBs and asbestos.

Prior to the Phase 1 demolition project, DCAM constructed a field office on the first floor of the Library, within the Phase 2 Area of the building. There is one isolated concrete column within the DCAM field office where a metal door frame once abutted the isolated column (Columns G/11). The door frame and associated caulk was removed and disposed under the Cost Removal Alternative Project. However, the former caulk joint is currently covered by new metal studs and gypsum wallboard. Since the interface between the concrete column and the former metal door frame is currently hidden, it is assumed that caulk residues are still present. As a precautionary measure, metal studs fastened to the column, as well as, gypsum wallboard within 12-inches of the former caulk joint, will be removed and disposed as PCB bulk product waste at a permitted landfill in accordance with 40 CFR 761.62(a).

2.3 Masonry

PCB-impacted masonry (CMU & brick) associated with the interior and exterior in-fill panels will be removed and disposal as PCB bulk product waste at a permitted landfill in accordance with 40 CFR 761.62(a). No segregation of brick and CMU masonry in-fill materials will be conducted.

Brick masonry materials within 6-inches of caulk joints on exterior shear walls at the stair towers, the elevator shafts, and at the northeastern bathroom core walls will be segregated and disposed as PCB bulk product waste at a permitted landfill in accordance with 40 CFR 761.62(a). Prior to removal, the PCB bulk product waste brick materials will be painted with a bright-colored paint. A comprehensive pre-characterization material testing program identified various levels of PCB contamination within masonry materials, indicating that PCBs have migrated from the caulk into the masonry materials (see Section 4.1 "Data Evaluation" for more details on the brick test results).

Approximately 200 tons of brick associated with the shear walls will be disposed/recycled as non-PCB impacted at a permitted facility. Approximately 600 tons of CMU and 350 tons of brick will be removed and disposed as PCB bulk product waste during the project. See Table 1 for a description of the waste stream management for the project.

See the contractor's work plan presented in Appendix B for details relating to waste management procedures.

Special Circumstances:

Non asbestos-containing spray-on fireproofing has been applied over PCB-containing caulking material in many locations throughout the building. Spray-on fireproofing material within 12-inches of caulk joints will be removed and disposed as PCB-impacted material at a permitted landfill in accordance with 40 CFR 761.62(a).

Caulk is in contact with metal frames associated with plaster ceilings under overhangs at various locations throughout the exterior of the building. Where this condition exists, the metal frame for the plaster and 12-inches of plaster material and associated metal lathe will be removed and disposed at a permitted landfill in accordance with 40 CFR 761.62(a).

2.4 Stored Concrete Components From Phase 1 Demolition

The PCB-impacted concrete structural components of the "Phase 1" Area of the building, which are currently stored within the Phase 2 Area of the building, will be removed and disposed as PCB bulk product waste at a permitted landfill in accordance with 40 CFR 761.62(a). Concrete pieces will be sized, as necessary, to meet the requirements of the disposal facility selected by the Contractor.

2.5 Concrete Components – Phase 2 Area

The concrete structural columns and spandrel beams associated with the Phase 2 Area of the Library, that are in contact with PCB-containing caulk, will be removed and disposed as PCB bulk product waste at a permitted landfill in accordance with 40 CFR 761.62(a). A total of approximately 83 interior columns and 164 exterior columns are PCB-impacted and most columns are impacted on multiple faces. Concrete pieces will be sized, as necessary, to meet the requirements of the disposal facility selected by the Contractor. Prior to concrete removal activities, the concrete sections will be painted with bright-colored paint.

In a typical demolition scenario, the concrete structural components of the building will be dismantled using conventional demolition equipment including hoe ram, hydraulic hammer, grappler, shear, and similar concrete separation devices, mounted on a conventional long-reach excavator working from the ground. These tools will be used to remove the concrete slabs and waffle slabs and to cut beams and columns into manageable pieces. An additional key piece of equipment will be the crane(s) that will support the members during the dismantling process and for lowering the components to the ground. During the dismantling process, any concrete debris associated with caulk-impacted members will be collected and packaged for off-site disposal as PCB bulk product waste. Wrecking balls and/or blasting will not be used during the dismantling process. Water misting will be used to control dust production and will be applied appropriately to reduce the likelihood of developing pools of water.

Concrete greater than 12-inches from caulk joints generated during the dismantling procedure will be recycled/disposed at appropriately permitted facilities. The bottom of the waffle slabs and the majority of interior columns contain very low levels of PCBs that are believed to be associated with an alternative source. The majority of these components are more than 5-feet from any PCB caulk joint. The collected debris associated with the waffle slabs and interior columns will be directed onto the adjacent lower floor, transported to the ground, and stockpiled. This material will be disposed off-site as construction/demolition debris and/or reused and recycled.

Special Circumstances:

EFI has observed locations where PCB-containing caulk comes into contact with the cast-in-place concrete ceilings/roof slab. In these areas, shoring may be utilized to stabilize the structure in locations where a minimum of 12-inches PCB-impacted concrete will be removed and disposed as PCB bulk product waste.

2.6 Parging/Mastic At Relieving Angles

The Contractor shall remove approximately 1,800 square feet of PCB-containing parging/mastic located underneath brick veneer at the relieving angles on the exterior of the building and dispose of the material as PCB bulk product waste at a permitted landfill in accordance with 40 CFR 761.62(a). The parging/mastic was used to adhere copper flashing to the concrete/CMU substrate underneath the brick veneer at the horizontal relieving angles, with the purpose of funneling water that may have infiltrated through the brick veneer to the exterior of the building.

PCB-containing caulk is contact with steel relieving angles on the exterior of the building. Since decontamination of metal components is not part of this Addendum, the Contractor will dispose of any PCB-impacted steel at a permitted landfill, in accordance with 40 CFR 761.62(a). In addition, backer-rod and rubber gasketing in contact with PCB-containing caulk, copper flashing in contact with the parging/mastic material, concrete within a minimum of 12-inches of the parging/mastic material, and CMU w/in 12-inches of the parging/mastic material will be removed and disposed as a PCB-contaminated material at a permitted facility, in accordance with 40 CFR 761.62(a).

Special Circumstances:

The parging/mastic also contains greater than one percent asbestos and is thus subject

to additional federal and state regulations specific to removal/disposal of ACM. This material will be disposed at a facility permitted to accept material that contains both PCBs and asbestos.

3.0 SITE ASSESSMENT AND SAMPLING SUMMARY

An initial survey to identify PCB-containing materials was conducted by EFI on April 17, 2009. This survey identified caulk that contained levels of PCBs greater than 50 ppm, and supplemental surveys were conducted on December 3, 2009, February 5, and February 26, 2010 to further characterize the nature and extent of PCB caulk in the Library. Table 2 presents the caulk analytical data, together with the sample identification number, and location within the Library. Appendix D contains CDs that contain the certified laboratory data sheets for all samples collected during assessment activities. Sample location drawings are provided on the CD in Appendix F.

On December 2, 2009 and January 21, and February 26, 2010 EFI collected core samples of the cast–in-place concrete, brick, and CMU materials in representative locations on the interior and exterior of the Library. This sampling was conducted to estimate the extent of migration within the media at several distances from the caulk. Tables 4, 5, and 6 present the sampling data for the CMU, brick, and concrete materials, respectively. In addition, these Tables present the sample identification number, and location within the Library. Certified laboratory data sheets for all analyses are presented in Appendix D and sample location drawings are presented on the CD in Appendix F.

On April 15 and May 10-12, 2010, EH&E collected additional caulk samples and core samples to further evaluate the nature and extent PCB caulk and residual contamination in the porous substrates. Samples were collected immediately behind the caulk after it was removed. The samples represent porous material collected to a nominal depth of 3-inches from the surface of the test material. Table 7 presents the sampling data for the co-located samples collected by EH&E.

DCAM requested that EFI collect additional core samples of masonry materials that were 12-inches and greater from the caulk joints. On September 16 and October 19, 2010, EFI collected an additional 33 core samples of CMU from within the Phase 1 Area. The CMU associated with these samples had been coated with paint. The results of this sampling activity are presented on Table 4. Based on these results, DCAM requested EFI to collect additional bulk samples of unpainted CMU that were a minimum of 12-inches from a caulk joint. The results of this sampling activity are presented in Table 4. EFI also collected samples of the interior and exterior glazing of window units for PCB analysis. A summary of these results is presented in Table 3.

In February 2011, EFI collected additional samples from each panel of the CMU and brick within the Phase 1 Area of the Library. These samples were collected in the last week in February 2011. The results of these samples are presented on Tables 4 and 5, respectively.

During the various phases of the project EFI and EH&E collected bulk samples of suspect materials other than caulk and glazing for PCB analysis. The results of these sample analyses are presented in Table 2.

In March and April 2012, EFI returned to the Library to collect additional bulk samples of caulk and oil residues observed at the Site, as well as, additional core samples of CMU, brick, and concrete. The results of the samples are presented in Tables 2, 4, 5, and 6, respectively. Concrete core samples were collected at depth intervals of 1-1.5" and 2-2.5" in order to further evaluate the extent to which PCBs migrated into the concrete. CMU and brick samples were collected at a depth interval of 0-0.5" and at a distance of 6-inches from the caulk joint to allow for a comparison with the previous CMU and brick samples collected at a distance of 12-inches from the caulk joint.

4.0 DATA EVALUATION

4.1 Brick

A total of 102 samples of brick were collected and analyzed for PCB concentrations, not including duplicates. The data summary was compiled from data presented in Table 5. All of the samples collected by EFI were within the first ½ inch of the brick surface. However, EH&E collected 4 samples directly under the caulk joint at a depth of 7.5 centimeters. The samples collected by EH&E were for informational purposes. Since the EH&E samples were collected for informational purposes only, they are excluded from the tables presented in this section of the Plan.

The results of these samples are presented in the table below. Samples were collected from the 1st brick, within approximately 3-inches of the caulk joint and the 2nd brick, within approximately 6-inches of a caulk joint. The data depicted in the table indicates a significant decrease in PCB concentrations from a distance of 3-inches to 6-inches from the caulk joint.

Summary of PCB Residues (ppm) in Brick by Distance from Caulk Line, Salem State Library, Salem State University, Salem, Massachusetts

Distance from Caulk	N	Min	Median	Mean	75th Percentile	95th Percentile	Max
1st Brick – Approx. 3 inches	34	0.05	0.09	4.01	5.93	18.95	34.4
2nd Brick – Approx. 6 inches	64	0.05	0.06	0.24	0.14	1.33	2.82

Samples depicted in this table were collected by EFI at a nominal depth of 0.5 inches from surface of the brick. Sample duplicates are not represented in this table.

For purposes of this Addendum, brick materials within 6-inches from a caulk joint on the shear walls will be removed and disposed as PCB bulk product waste at a permitted landfill.

Brick is believed to be less susceptible to migration of PCBs than CMU due to the brick manufacturing process. Bricks are prepared in a mold without releasing agents that may include water and oil. Unlike concrete–related products such as pre-cast and cast-in-place structures or CMU, bricks are placed in kilns with temperatures exceeding 2,000

degrees Fahrenheit. This baking of the brick drives off excess moisture. In addition, the firing of the brick creates a shell and the density of bricks is greater, thereby reducing the porosity of brick and thus limiting the inward migration of the PCBs.

5.0 VERIFICATION INSPECTION & SAMPLING

5.1 Verification Sampling

Since removal and disposal of all PCB bulk product waste materials, with the exception of a small quantity of brick, will be conducted in accordance with the performance based disposal provisions of 40 CFR 761.62(a), no post-remediation verification sampling will be conducted.

5.2 Visual Inspection Criteria

Pre-demolition Inspection

Prior to the demolition work, the work areas will be inspected to ensure that the PCB removal areas have been clearly and accurately marked and that environmental protective measures such as wind screen, polyethylene sheeting, and water misters are in place. Any deficiencies will be corrected before the demolition work begins.

Post-demolition Inspection

Upon completion of the work, the work area will be inspected to ensure that the marked masonry and concrete material has been properly segregated from the unmarked material, or non PCB-impacted material. In addition, the area will be inspected for evidence of fugitive debris from the demolition activities, and any material that may be PCB-impacted will be noted and cleaned up by the Contractor and treated as PCB bulk product waste.

6.0 WASTE MANAGEMENT

6.1 On-Site Management

All waste streams will be managed in accordance with applicable regulations and policies of federal and state environmental agencies. The staging area for PCB-containers and roll-offs will be the parking area to the south of the Library. Roll-offs and waste containers will be placarded as containing PCB waste with markings meeting the EPA requirements of 40 CFR 761.40 and 761.45.

All personal protective equipment (PPE), containment materials, filters, particulates, and equipment that cannot be fully decontaminated, will be managed as PCB waste with levels greater than or equal to 50 ppm.

All stockpiles and containers will be clearly labeled and situated such that the contents of a waste stream do not come into contact with the contents of adjacent stockpiles or

containers.

All PCB bulk product waste and incidental waste and materials will be removed from the Site within 90 days of generation.

Movable equipment will be thoroughly cleaned prior to removal from the site.

The Contractor Work Plan presented in Appendix B provides a more detailed description of the storage container, transport containers, means of handling, transport and disposal of waste, as required in the project specification.

6.2 Off-Site Disposal

All PCB bulk product waste and demolition debris will be removed from the Library for disposal off-site in accordance with the Contractor's Work Plan, in addition to, applicable state and federal regulations. Masonry and concrete waste with PCB concentrations of greater than 50 ppm will be sent to a permitted landfill facility, in accordance with 40 CFR 761.62.

Table 1 summarizes the waste streams for this project and anticipated disposal options.

Copies of all hazardous waste manifests, non-hazardous waste manifests, material shipping records, and certificates of disposal will be provided to the University, EPA and MassDEP as proof of proper disposal.

Tables

TABLE 1
Project Waste Stream Management
Phase 2 Demolition
Salem State University Library
360 Lafayette Street
Salem, MA

MEDIA	ACTIVITY	WASTE TYPE	TSCA REGULATION	ESTIMATED QUANTITY
PCB caulk	Disposal	PCB Bulk Product Waste	761.62(a)	35,000 linear feet
Backer Rod	Disposal	PCB Bulk Product Waste	761.62(a)	Less than 8,000 feet[1]
Window & Door Frames	Disposal	Contaminated Frames	761.62(a)	477 window frames 37 door frames
Concrete & Masonry greater than 50 ppm	Disposal	PCB Bulk Product Waste	761.62(a)	350 tons (Brick)
				600 tons (CMU)
				260 tons (Concrete)
Non-PCB Impacted Materials	Disposal / Recycling	Non-TSCA Regulated Construction / Demolition Material	N/A	12,000 tons (Concrete) 200 tons (Brick)
PPE & Poly	Disposal	PCB Remediation Waste	761.61(a)	Not Available – To Be Determined

[1]It is assumed that approximately 25% of the caulk joints will have backer rods.

TABLE 2
Summary of Caulk and Other Bulk Sample Analyses
Phase 2 Demolition
Salem State University Library
360 Lafayette Street
Salem, MA

Sample ID	Location		Matrix	Face	Concentration (ppm)	Date of Collection	Consultant
105888	Ground Level	Mech Rm G05, Column M-N7	CMU to Concrete	Interior	670	April 15 & May 10-12	EHE
105889	Ground Level	Mech Rm G05, by stairs	CMU to Concrete	Interior	490	April 15 & May 10-12	EHE
105890	Ground Level	Elevator Lobby, column M4	CMU to Concrete	Interior	300	April 15 & May 10-12	EHE
110833	Ground Level	Elevator Lobby Wall, S side	CMU to Concrete	Interior	140	April 15 & May 10-12	EHE
110834	Ground Level	Sorage Area W side, wall joint	CMU to Concrete	Interior	440	April 15 & May 10-12	EHE
	Ground Level	Column L/6	CMU to Concrete	Interior	297.3	2/26/2010	EFI
	Lower Floor	Column M/2	CMU to Concrete	Interior	9900	2/26/2010	EFI
105885	Lower Level	Corridor L20 column K4	CMU to Concrete	Interior	110	April 15 & May 10-12	EHE
105886	Lower Level	SouthWest Stair, Column N4	Metal Door Frame to Concrete Column	Interior	140	April 15 & May 10-12	EHE
105887	Lower Level	Room L107, column F15	CMU to Concrete Deck	Interior	390	April 15 & May 10-12	EHE
108898	Lower Level	Duplicate of 105887	CMU to Concrete Deck	Interior	310	April 15 & May 10-12	EHE
110831	Lower Level	Elevator Lobby, S Side, ceiling deck	CMU to Concrete	Interior	180	April 15 & May 10-12	EHE
110832	Lower Level	West facing wall joint	CMU to Concrete	Interior	27000	April 15 & May 10-12	EHE
105878	First Floor	Room 119, Column M4,	CMU to Concrete Column	Interior	18000	April 15 & May 10-12	EHE
105879	First Floor	North Stairwell, Column E10-11	CMU to Concrete Column	Interior	110	April 15 & May 10-12	EHE
105880	First Floor	North Stairwell, Janitor's closet	Metal Door Frame to Concrete Column	Interior	150	April 15 & May 10-12	EHE
105881	First Floor	Door to C107, Column G11	Metal Door Frame to Concrete Column	Interior	94	April 15 & May 10-12	EHE
105882	First Floor	Lounge 107, Column F16	Metal Frame Window to CMU	Interior	140	April 15 & May 10-12	EHE
105883	First Floor	Vestibule 103,	Brick to Concrete Deck	Interior	1180	April 15 & May 10-12	EHE
105884	First Floor	Room 104, Column A13	Concrete Window Sill to Concrete Column	Interior	120	April 15 & May 10-12	EHE
109661	First Floor	Location A Ref Room, southwest corner grey caulking	CMU to Concrete Column	Interior	ND	April 15 & May 10-13	EHE
	First Floor	Seam Caulking	CMU to Concrete	Interior	1230	4/17/2009	EFI
	First Floor	Column F/1	CMU to Concrete	Interior	13200	2/26/2010	EFI
	First Floor	Column E/11	CMU to Concrete	Interior	196.8	2/26/2010	EFI
	First Floor	Caulk on isolated column #1	Metal Door Frame (Former) to Concrete Column	Interior	213	3/23/2012	EFI
	First Floor	Caulk on isolated column #2	Metal Door Frame (Former) to Concrete Column	Interior	233	3/23/2012	EFI
	Second Floor	Column H/4	CMU to Concrete	Interior	15000	2/26/2010	EFI
	Second Floor	Column C/11	CMU to Concrete	Interior	17500	2/26/2010	EFI
105870	Second Floor	Outside Room 210, Column K4	CMU to Concrete	Interior	27000	April 15 & May 10-12	EHE
105871	Second Floor	Room 211, Column D6	Metal Window Frame to Concrete	Interior	47000	April 15 & May 10-12	EHE
105872	Second Floor	Outside Room 201, Column F4	Metal Door Frame to CMU	Interior	710	April 15 & May 10-12	EHE
105873	Second Floor	Southest Stairwell	CMU to Concrete	Interior	350	April 15 & May 10-12	EHE
105874	Second Floor	Room 203	Metal Window Frame to Deck	Interior	1590	April 15 & May 10-12	EHE
105897	Second Floor	Duplicate 105872	Metal Door Frame to CMU	Interior	1820	April 15 & May 10-12	EHE
110828	Second Floor	Reading Room, West Wall, Ceiling Deck	CMU to Concrete	Interior	20000	April 15 & May 10-12	EHE
110829	Second Floor	Electrical Closet, Northeast Exit, Ceiling Deck	CMU to Concrete	Interior	860	April 15 & May 10-12	EHE
110830	Second Floor	Curriculum resource library, North Wing, Wall Joint	CMU to Concrete	Interior	23000	April 15 & May 10-12	EHE
105862	Third Floor	Corridor 307, Column K14	CMU	Interior	24000	April 15 & May 10-12	EHE
105863	Third Floor	Room 334, Column F2	Metal Window Frame to CMU	Interior	40000	April 15 & May 10-12	EHE
105895	Third Floor	Duplicate of 105863	Metal Window Frame to CMU	Interior	33000	April 15 & May 10-12	EHE
105865	Third Floor	Room 330	CMU to Concrete	Interior	340	April 15 & May 10-12	EHE
105866	Third Floor	Room 326	CMU to Concrete	Interior	380	April 15 & May 10-12	EHE
105869	Third Floor	Corridor 312, Column K4	CMU to Concrete	Interior	24000	April 15 & May 10-12	EHE
110822	Third Floor	Room 332 South Wall Ceiling Deck	CMU to Concrete	Interior	31000	April 15 & May 10-12	EHE
110823	Third Floor	Room 332 South Wall Ceiling Deck	CMU to Concrete	Interior	47000	April 15 & May 10-12	EHE
110825	Third Floor	Room 329, South Wall	CMU to Concrete	Interior	660	April 15 & May 10-12	EHE
110826	Third Floor	Room 307, North Wall, Ceiling,	CMU to Concrete	Interior	32000	April 15 & May 10-12	EHE
	Third Floor	Column K/15	CMU to Concrete	Interior	14200	2/26/2010	EFI
	Third Floor	Column M/3	CMU to Concrete	Interior	7250	2/26/2010	EFI
109662	Third Floor	Location C Room 320, Sotheast Column Grey Caulking	CMU to Concrete Column	Interior	ND	April 15 & May 10-12	EHE
109663	Fourth Floor	Location D Room 404, Column Grey Caulking	CMU to Concrete Column	Interior	ND	April 15 & May 10-12	EHE

TABLE 2
Summary of Caulk and Other Bulk Sample Analyses
Phase 2 Demolition
Salem State University Library
360 Lafayette Street
Salem, MA

Sample ID	Location		Matrix	Face	Concentration (ppm)	Date of Collection	Consultant
	Fourth Floor	Column N/7	CMU to Concrete	Interior	9850	2/26/2010	EFI
	Fourth Floor	Column C/14	CMU to Concrete	Interior	9360	2/26/2010	EFI
105857	Fourth Floor	Outside Room 401, Column F4	CMU to Concrete	Interior	29000	April 15 & May 10-12	EHE
105858	Fourth Floor	Room 404 Column D6	Metal Window Frame to CMU	Interior	26000	April 15 & May 10-12	EHE
105859	Fourth Floor	Outside Room 402, Column D4-5	Metal Door Frame to CMU	Interior	30000	April 15 & May 10-12	EHE
105861	Fourth Floor	Room 412, South West Door	Metal Door Frame to CMU	Interior	280	April 15 & May 10-12	EHE
105875	Fourth Floor	Room C420,	CMU to Concrete	Interior	42000	April 15 & May 10-12	EHE
105876	Fourth Floor	Room C420,	Metal Window Frame to Concrete	Interior	43000	April 15 & May 10-12	EHE
105877	Fourth Floor	Room 412, Column C14, Ceiling Deck	CMU to Concrete	Interior	48000	April 15 & May 10-12	EHE
105893	Fourth Floor	Matrix Spike of 105861	Metal Door Frame to CMU	Interior	240	April 15 & May 10-12	EHE
105894	Fourth Floor	Matrix Spike Duplicate of 105861	Metal Door Frame to CMU	Interior	250	April 15 & May 10-12	EHE
110827	Fourth Floor	Room 433, Ceiling Deck	CMU Caulk	Interior	51000	April 15 & May 10-12	EHE
109541	Ground Level	Loading dock, south elevation	Brick to Concrete	Exterior	180	April 15 & May 10-12	EHE
110816	Ground Level	South face, narrow tower	Brick	Exterior	50000	April 15 & May 10-12	EHE
110817	Ground Level	South face	Brick to Concrete	Exterior	22000	April 15 & May 10-12	EHE
110818	Ground Level	South face, east corner, relief angle	Brick to Brick	Exterior	47000	April 15 & May 10-13	EHE
105891	Lower Level	Matrix Spike of 110819	Brick to Brick	Exterior	13000	April 15 & May 10-12	EHE
105892	Lower Level	Matrix Spike Duplicate of 110819	Brick to Brick	Exterior	17000	April 15 & May 10-12	EHE
110819	Lower Level	East face relief angle	Brick to Brick	Exterior	11000	April 15 & May 10-12	EHE
109544		Duplicate of 109543	Window Glazng	Exterior	12	April 15 & May 10-13	EHE
110820	First Floor	Window Ledge, West Face	Brick to Concrete	Exterior	278	April 15 & May 10-12	EHE
110821	First Floor	By Main Entrance, Northwest Face	Window to Concrete	Exterior	830	April 15 & May 10-12	EHE
105896	First Floor	Duplicate of 110821	Window to Concrete	Exterior	2480	April 15 & May 10-12	EHE
110835	First Floor	Concrete Window Ledge, East Wall	CMU to Concrete	Exterior	38,000	April 15 & May 10-12	EHE
110836	First Floor	Main Entrance, Front Door Window	Metal Frame	Exterior	11	April 15 & May 10-12	EHE
	First Floor	Window Caulking	Window Caulking	Exterior	850	4/17/2009	EFI
	First Floor	Window Sill Caulking	Window Sill Caulking	Exterior	2120	4/17/2009	EFI
	First Floor	Caulking on (brick) Staircase & Elevator Towers	Caulk on Brick	Exterior	59000	4/17/2009	EFI
109552	Fourth Floor	Balcony, West Elevation	Brick to Concrete	Exterior	320	April 15 & May 10-12	EHE
109554		Duplicate of 109552	Brick to Concrete	Exterior	390	April 15 & May 10-12	EHE
109555		Duplicate of 109554	Brick to Concrete	Exterior	ND	April 15 & May 10-13	EHE
109553	Fourth Floor	Balcony/Patio, Left Side, Caulking		Exterior	ND	April 15 & May 10-14	EHE
	Elevator Room	Oil on Concrete Slab Floor #1 - North Side	Oil Residue	Interior	1.75		
	Elevator Room	Oil on Concrete Slab Floor #2 - North Side	Oil Residue	Interior	4.18		
109634	Roof	NE Side, Metal Flashing Under Windows, Grey Caulking, Flashing Seam	Exterior Roof Caulking/Flashing	Exterior	6.8	April 15 & May 10-12	EHE
109635	Roof	NE Side, Metal Flashing Under Windows, Light Grey Caulking, Flashing	Exterior Roof Caulking/Flashing	Exterior	15	April 15 & May 10-12	EHE
109636	Roof	SW Side, Metal Flashing, Under Windows, Light Grey Caulking, Flashing	Exterior Roof Caulking/Flashing	Exterior	4.9	April 15 & May 10-12	EHE
109637	Roof	SW Side, Metal Flashing, Under Windows, Grey Caulking, Flash seam	Exterior Roof Caulking/Flashing	Exterior	1.4	April 15 & May 10-12	EHE
109639	Roof	NE Side Light Grey Caulking Metal Roof Flashing	Exterior Roof Caulking/Flashing	Exterior	ND	April 15 & May 10-13	EHE
109640	Roof	SW Side Light Grey Caulking Metal Roof Flashing	Exterior Roof Caulking/Flashing	Exterior	ND	April 15 & May 10-14	EHE
	Roof	Caulk on Corner of CMU Wall Rf #1	Exterior Roof Caulking/Flashing	Exterior	16600	3/23/2012	EFI
	Roof	Caulk on Corner of CMU Wall Rf #2	Exterior Roof Caulking/Flashing	Exterior	3910	3/23/2012	EFI
	Roof	Patch Caulk on CMU Wall Rf #1	Exterior Roof Caulking/Flashing	Exterior	4.23	3/23/2012	EFI
	Roof	Patch Caulk on CMU Wall Rf #2	Exterior Roof Caulking/Flashing	Exterior	2.55	3/23/2012	EFI
	Roof	Beige Perimeter Window Caulk #1	Exterior Roof Caulking/Flashing	Exterior	9540	3/23/2012	EFI
	Roof	Beige Perimeter Window Caulk #2	Exterior Roof Caulking/Flashing	Exterior	9570	3/23/2012	EFI
	Roof	Dk. Gray Caulk on Flashing #1	Exterior Roof Caulking/Flashing	Exterior	35.4	3/23/2012	EFI
	Roof	Dk. Gray Caulk on Flashing #2	Exterior Roof Caulking/Flashing	Exterior	44.2	3/23/2012	EFI
	Roof	Lt. Grey Caulk on Column Rf #1	Exterior Roof Caulking/Flashing	Exterior	9.99	3/23/2012	EFI
	Roof	Lt. Grey Caulk on Column Rf #2	Exterior Roof Caulking/Flashing	Exterior	95.1	3/23/2012	EFI
	Exterior	Caulk on Stairs West Side	Exterior Seam Caulking	Exterior	2.2	2/9/2011	EFI
	Exterior	Caulk on Stairs Lower Side	Exterior Seam Caulking	Exterior	1.3	2/9/2011	EFI

TABLE 2
Summary of Caulk and Other Bulk Sample Analyses
Phase 2 Demolition
Salem State University Library
360 Lafayette Street
Salem, MA

Sample ID	Location		Matrix	Face	Concentration (ppm)	Date of Collection	Consultant
	Exterior	Caulk on Bridge To Meier Hall West	Exterior Seam Caulking	Exterior	2110	2/9/2011	EFI
	Exterior	Caulk on Bridge To Meier Hall East	Exterior Seam Caulking	Exterior	2600	2/9/2011	EFI
	Exterior	Damp-proofing/Vapor Barrier Under Concrete Slab Floor	Asphaltic	Exterior	0.206	2/9/2011	EFI
	Exterior	Damp-proofing/Vapor Barrier Under Concrete Slab Floor	Asphaltic	Exterior	0.51	2/9/2011	EFI
	Exterior	Foundation Dampproofing NE	Asphaltic	Exterior	15.6	2/9/2011	EFI
	Exterior	Foundation Dampproofing NW	Asphaltic	Exterior	5.54	2/9/2011	EFI
	Exterior	Mastic/Parging at Relieving Angles NE Side	Asphaltic	Exterior	6.66	2/9/2011	EFI
	Exterior	Mastic/Parging at Relieving Angles South Side	Asphaltic	Exterior	88.1	2/9/2011	EFI

NOTES:
ND - none detected
ppm - parts per million
CMU - concrete masonry unit
EFI Sample ID is the Sample Location for all sampling except core CMU, concrete, and brick sampling, where they used a specific sample id.

TABLE 3
Summary of Window Glazing Sample Analyses
Phase 2 Demolition
Salem State University
360 Lafayette Street
Salem, MA

Sample ID		Location	Matrix	Face	Concentration (ppm)	Date of Collection	Consultant
P-G-I	Ground Floor	Specific panel Location of sample is indicated in Sample ID	Window Glazing	Interior	16	9/16/2010	EFI
P-G-E	Ground Floor	Specific panel Location of sample is indicated in Sample ID	Window Glazing	Exterior	29.8	9/16/2010	EFI
109543	Lower Level	Deck Brown Window Glazing	Window Glazing	Exterior	45	April 15 & May 10-12	EHE
P-1B-I	Lower Level	Specific panel Location of sample is indicated in Sample ID	Window Glazing	Interior	119	9/15/2010	EFI
P-1B-E	Lower Level	Specific panel Location of sample is indicated in Sample ID	Window Glazing	Exterior	74.2	9/15/2010	EFI
P-1C-I	Lower Level	Specific panel Location of sample is indicated in Sample ID	Window Glazing	Interior	30.4	9/15/2010	EFI
P-1C-E	Lower Level	Specific panel Location of sample is indicated in Sample ID	Window Glazing	Exterior	2.55	9/15/2010	EFI
P-1E-I	Lower Level	Specific panel Location of sample is indicated in Sample ID	Window Glazing	Interior	95.7	9/16/2010	EFI
P-1G-I	Lower Level	Specific panel Location of sample is indicated in Sample ID	Window Glazing	Interior	140	9/16/2010	EFI
P-1G-E	Lower Level	Specific panel Location of sample is indicated in Sample ID	Window Glazing	Exterior	85.6	9/15/2010	EFI
P-1H-I	Lower Level	Specific panel Location of sample is indicated in Sample ID	Window Glazing	Interior	148.0	9/15/2010	EFI
P-1H-E	Lower Level	Specific panel Location of sample is indicated in Sample ID	Window Glazing	Exterior	21.4	9/15/2010	EFI
P-1I-I	Lower Level	Specific panel Location of sample is indicated in Sample ID	Window Glazing	Interior	23.2	9/15/2010	EFI
P-1I-E	Lower Level	Specific panel Location of sample is indicated in Sample ID	Window Glazing	Exterior	7.82	9/15/2010	EFI
	First Floor	South Elevation	Window Glazing	Interior	546	12/3/2009	EFI
109545	First Floor	First Floor, Outside Main Entrance, North Elevation	Window Glazing	Exterior	7.4	April 15 & May 10-12	EHE
P-2B-I	First Floor	Specific panel Location of sample is indicated in Sample ID	Window Glazing	Interior	108	9/15/2010	EFI
P-2B-E	First Floor	Specific panel Location of sample is indicated in Sample ID	Window Glazing	Exterior	37.5	9/15/2010	EFI
P-2C-I	First Floor	Specific panel Location of sample is indicated in Sample ID	Window Glazing	Interior	91.4	9/15/2010	EFI
P-2C-E	First Floor	Specific panel Location of sample is indicated in Sample ID	Window Glazing	Exterior	1.28	9/15/2010	EFI
P-2E-I	First Floor	Specific panel Location of sample is indicated in Sample ID	Window Glazing	Interior	59.6	9/15/2010	EFI
P-2G-I	First Floor	Specific panel Location of sample is indicated in Sample ID	Window Glazing	Interior	96.3	9/15/2010	EFI
P-2G-E	First Floor	Specific panel Location of sample is indicated in Sample ID	Window Glazing	Exterior	34.2	9/15/2010	EFI
P-2H-I	First Floor	Specific panel Location of sample is indicated in Sample ID	Window Glazing	Interior	58	9/15/2010	EFI
P-2I-I	First Floor	Specific panel Location of sample is indicated in Sample ID	Window Glazing	Interior	53	9/15/2010	EFI
P-3A-I	Second Floor	Specific panel Location of sample is indicated in Sample ID	Window Glazing	Interior	318	9/15/2010	EFI
P-3B-I	Second Floor	Specific panel Location of sample is indicated in Sample ID	Window Glazing	Interior	160	9/15/2010	EFI
P-3C-I	Second Floor	Specific panel Location of sample is indicated in Sample ID	Window Glazing	Interior	398	9/15/2010	EFI
P-3E-I	Second Floor	Specific panel Location of sample is indicated in Sample ID	Window Glazing	Interior	318	9/15/2010	EFI
P-3F-I	Second Floor	Specific panel Location of sample is indicated in Sample ID	Window Glazing	Interior	18	9/15/2010	EFI
P-3G-E	Second Floor	Specific panel Location of sample is indicated in Sample ID	Window Glazing	Exterior	8.64	9/15/2010	EFI
P-3G-I	Second Floor	Specific panel Location of sample is indicated in Sample ID	Window Glazing	Interior	145	9/15/2010	EFI
P-3G-I'	Second Floor	Specific panel Location of sample is indicated in Sample ID	Window Glazing	Interior	180	9/16/2010	EFI
P-3H-I	Second Floor	Specific panel Location of sample is indicated in Sample ID	Window Glazing	Interior	301	9/15/2010	EFI
P-3H-I'	Second Floor	Specific panel Location of sample is indicated in Sample ID	Window Glazing	Interior	121	9/16/2010	EFI
P-3I-I	Second Floor	Specific panel Location of sample is indicated in Sample ID	Window Glazing	Interior	117	9/15/2010	EFI
P-3I-I'	Second Floor	Specific panel Location of sample is indicated in Sample ID	Window Glazing	Interior	118	9/16/2010	EFI
P-4A-I	Third Floor	Specific panel Location of sample is indicated in Sample ID	Window Glazing	Interior	217	9/15/2010	EFI
P-4B-I	Third Floor	Specific panel Location of sample is indicated in Sample ID	Window Glazing	Interior	84.1	9/15/2010	EFI
P-4C-I	Third Floor	Specific panel Location of sample is indicated in Sample ID	Window Glazing	Interior	256	9/15/2010	EFI

TABLE 3
Summary of Window Glazing Sample Analyses
Phase 2 Demolition
Salem State University
360 Lafayette Street
Salem, MA

Sample ID		Location	Matrix	Face	Concentration (ppm)	Date of Collection	Consultant
P-4E-I	Third Floor	Specific panel Location of sample is indicated in Sample ID	Window Glazing	Interior	324	9/15/2010	EFI
P-4F-I	Third Floor	Specific panel Location of sample is indicated in Sample ID	Window Glazing	Interior	15500	9/15/2010	EFI
P-4G-I	Third Floor	Specific panel Location of sample is indicated in Sample ID	Window Glazing	Interior	434	9/15/2010	EFI
P-4H-I	Third Floor	Specific panel Location of sample is indicated in Sample ID	Window Glazing	Interior	535	9/15/2010	EFI
P-4I-I	Third Floor	Specific panel Location of sample is indicated in Sample ID	Window Glazing	Interior	62.1	9/15/2010	EFI
109562	Fourth Floor	Balcony West Elevation	Window Glazing	Exterior	0.94 (U)	April 15 & May 10-12	EHE
109563	Fourth Floor	Balcony East Elevation	Window Glazing	Exterior	0.44	April 15 & May 10-12	EHE
109564	Fourth Floor	Patio Right Side, Caulking, Window Glazing	Window Glazing	Exterior	ND	April 15 & May 10-12	EHE
109638	Fourth Floor	Duplicate of 109564	Window Glazing	Exterior	ND	April 15 & May 10-12	EHE
P-5B-I	Fourth Floor	Specific panel Location of sample is indicated in Sample ID	Window Glazing	Interior	9.32	9/15/2010	EFI
P-5D-I	Fourth Floor	Specific panel Location of sample is indicated in Sample ID	Window Glazing	Interior	33.9	9/15/2010	EFI
P-5D-E	Fourth Floor	Specific panel Location of sample is indicated in Sample ID	Window Glazing	Exterior	2.22	9/15/2010	EFI
P-5I-I	Fourth Floor	Specific panel Location of sample is indicated in Sample ID	Window Glazing	Interior	28.5	9/15/2010	EFI
P-5G-I	Fourth Floor	Specific panel Location of sample is indicated in Sample ID	Window Glazing	Interior	15	9/15/2010	EFI
P-5J-IA	Fourth Floor	Specific panel Location of sample is indicated in Sample ID	Window Glazing	Interior	16	9/15/2010	EFI
P-5J-IB	Fourth Floor	Specific panel Location of sample is indicated in Sample ID	Window Glazing	Interior	16.8	9/15/2010	EFI
P-5K-I	Fourth Floor	Specific panel Location of sample is indicated in Sample ID	Window Glazing	Interior	19.4	9/15/2010	EFI

NOTES:
ppm - parts per million
(U) - PCBs not detected at the laboratory reporting limit listed for the sample.
ND: none detected

TABLE 4
Summary of CMU Sample Analyses
Phase 2 Demolition
Salem State University Library
360 Lafayette Street
Salem, MA

	Sample ID	Location	Sample Depth	Distance from Caulk Joint	Concentration (ppm)	Coating	Date of Collection	Consultant
<3 inches from Caulk Joint	PCB-041	Ground floor, storage rm	0-0.5"	2"	1.336	Unpainted	1/21/2010	EFI
	PCB-042	Ground floor, corridor	0-0.5"	2"	2.87	Painted	1/21/2010	EFI
	PCB-037	Low levl corridor, near womens rm	0-0.5"	2"	1.102	Painted	1/21/2010	EFI
	109618	1st fl, ref rm, SW Corner	3 "	0-3"	280	Painted	4/15/2010	EHE
	PCB-001	1st fl, ref rm, SE corner	0-0.5"	2"	12.3	Painted	12/3/2009	EFI
	PCB-021	3rd fl, stack area, east side	0-0.5"	2"	16.87	Painted	1/21/2010	EFI
	109625	3rd fl, Rm 320 SE Corner	3 "	0-3"	4.8	Painted	4/15/2010	EHE
	109631	4th fl, Rm 404, CMU Column	3 "	0-3"	130	Painted	4/15/2010	EHE
	109632	Dup of 109631	3 "	0-3"	92	Painted	4/15/2010	EHE
	PCB-026	4th fl, stack area, west side	0-0.5"	2"	53.5	Painted	1/21/2010	EFI
	PCB-029	4th fl, stack area, nw corner	0-0.5"	2"	49	Painted	1/21/2010	EFI
	PCB-030	4th fl, study rm 404	0-0.5"	2"	15.4	Painted	1/21/2010	EFI
Panel Center	P2E-CMU-P-Center	First Floor	0-0.5"	7'-4"	1.44	Painted	10/19/2010	EFI
	P2H-CMU-P-Center	First Floor	0-0.5"	7'-4"	1.61	Painted	10/19/2010	EFI
	P2B-CMU-P-Center	First Floor	0-0.5"	7'-4"	2.51	Painted	10/19/2010	EFI
	P4E-CMU-P-Center	Third Floor	0-0.5"	5'-8"	2.03	Painted	10/19/2010	EFI
	P4B-CMU-P-Center	Third Floor	0-0.5"	5'-8"	2.25	Painted	10/19/2010	EFI
12 inches from Caulk Joint	P1A-CMU	Lower Level	0-0.5"	12"	1.85	Painted	9/16/2010	EFI
	P1D-CMU	Lower Level	0-0.5"	12"	0.992	Painted	9/16/2010	EFI
	P1F-CMU	Lower Level	0-0.5"	12"	1.47	Painted	9/16/2010	EFI
	P1H-CMU	Lower Level	0-0.5"	12"	1.74	Painted	9/16/2010	EFI
	P1-3-CMU	Lower Level	0-0.5"	12"	1.96	Painted	9/16/2010	EFI
	P1-5-CMU	Lower Level	0-0.5"	12"	0.591	Painted	9/16/2010	EFI
	P1E-CMU-U-12"	Lower Level	0-0.5"	12"	1.05	Unpainted	10/19/2010	EFI
	P1-6-CMU	Lower Level	0-0.5"	12"	2.28	Painted	9/16/2010	EFI
	P2B-CMU-U-12"	First Floor	0-0.5"	12"	1.02	Unpainted	10/19/2010	EFI
	P2I-CMU-U-12"	First Floor	0-0.5"	12"	0.742	Unpainted	10/19/2010	EFI
	P2E-CMU-U-12"	First Floor	0-0.5"	12"	2.04	Unpainted	10/19/2010	EFI
	P2B-CMU	First Floor	0-0.5"	12"	3.46	Painted	9/16/2010	EFI
	P2D-CMU	First Floor	0-0.5"	12"	1.29	Painted	9/16/2010	EFI
	P2E-CMU	First Floor	0-0.5"	12"	2.91	Painted	9/16/2010	EFI
	P2G-CMU	First Floor	0-0.5"	12"	1.87	Painted	9/16/2010	EFI
	P2I-CMU	First Floor	0-0.5"	12"	3.28	Painted	9/16/2010	EFI
	P3A-CMU	Second Floor	0-0.5"	12"	2.7	Painted	9/16/2010	EFI
	P3E-CMU	Second Floor	0-0.5"	12"	4.1	Painted	9/16/2010	EFI
	P3F-CMU	Second Floor	0-0.5"	12"	1.57	Painted	9/16/2010	EFI
	P3-3-CMU	Second Floor	0-0.5"	12"	4	Painted	9/16/2010	EFI
	P4B-CMU	Third Floor	0-0.5"	12"	2.49	Unpainted	9/16/2010	EFI
	P4D-CMU	Third Floor	0-0.5"	12"	5.07	Painted	9/16/2010	EFI
	P4E-CMU	Third Floor	0-0.5"	12"	1.93	Unpainted	9/16/2010	EFI
	P4-3-CMU	Third Floor	0-0.5"	12"	1.8	Painted	9/16/2010	EFI
	P5-3-CMU	Fourth Floor	0-0.5"	12"	0.686	Painted	9/16/2010	EFI
	P5C-CMU	Fourth Floor	0-0.5"	12"	2.06	Painted	9/16/2010	EFI
	P5-4-CMU	Fourth Floor	0-0.5"	12"	2.2	Painted	9/16/2010	EFI
	P5F-CMU	Fourth Floor	0-0.5"	12"	1.78	Painted	9/16/2010	EFI
	P1G-CMU	Lower Level	0-0.5"	12"	2.1		2/25/2011	EFI
	P1I-CMU	Lower Level	0-0.5"	12"	1.78		2/25/2011	EFI
	P2A-CMU	First Floor	0-0.5"	12"	0.847		2/25/2011	EFI
	P2F-CMU	First Floor	0-0.5"	12"	0.874		2/25/2011	EFI
	P3G-CMU	Second Floor	0-0.5"	12"	0.986		2/25/2011	EFI
	P3H-CMU	Second Floor	0-0.5"	12"	0.897		2/25/2011	EFI
	P3I-CMU	Second Floor	0-0.5"	12"	1.17		2/25/2011	EFI
	P3-4-CMU	Second Floor	0-0.5"	12"	0.59		2/25/2011	EFI
	P3-6-CMU	Second Floor	0-0.5"	12"	0.57		2/25/2011	EFI
	P4F-CMU	Third Floor	0-0.5"	12"	2.91		2/25/2011	EFI
	P4G-CMU	Third Floor	0-0.5"	12"	1.56		2/25/2011	EFI
	P4H-CMU	Third Floor	0-0.5"	12"	1.24		2/25/2011	EFI
	P4I-CMU	Third Floor	0-0.5"	12"	1.49		2/25/2011	EFI
	P4-4-CMU	Third Floor	0-0.5"	12"	0.528		2/25/2011	EFI
	P4-6-CMU	Third Floor	0-0.5"	12"	1.04		2/25/2011	EFI
	P5A-CMU	Fourth Floor	0-0.5"	12"	0.311		2/25/2011	EFI
	P5H-CMU	Fourth Floor	0-0.5"	12"	0.355		2/25/2011	EFI
	P5E-CMU	Fourth Floor	0-0.5"	12"	1.45		2/25/2011	EFI
	P5J-CMU	Fourth Floor	0-0.5"	12"	0.102		2/25/2011	EFI
	P5I-CMU	Fourth Floor	0-0.5"	12"	0.3017		2/25/2011	EFI
	P5K-CMU	Fourth Floor	0-0.5"	12"	0.16		2/25/2011	EFI
	P5-6-CMU	Fourth Floor	0-0.5"	12"	1.54		2/25/2011	EFI
	P0F-CMU	Ground Floor	0-0.5"	12"	0.44		3/3/2011	EFI
	P0H-CMU	Ground Floor	0-0.5"	12"	0.27		3/3/2011	EFI
	P0J-CMU	Ground Floor	0-0.5"	12"	0.136		3/3/2011	EFI
	P0K-CMU	Ground Floor	0-0.5"	12"	0.182		3/3/2011	EFI
	P0L-CMU	Ground Floor	0-0.5"	12"	0.162		3/3/2011	EFI
	P0M-CMU	Ground Floor	0-0.5"	12"	0.214		3/3/2011	EFI
	P0-5-CMU	Ground Floor	0-0.5"	12"	1.043		3/3/2011	EFI
	P0-6-CMU	Ground Floor	0-0.5"	12"	1.066		3/3/2011	EFI
	P0-7-CMU	Ground Floor	0-0.5"	12"	2.49		3/3/2011	EFI
	P0-8-CMU	Ground Floor	0-0.5"	12"	0.426		3/3/2011	EFI
	P0-10-CMU	Ground Floor	0-0.5"	12"	2.26		3/3/2011	EFI
	P0-11-CMU	Ground Floor	0-0.5"	12"	1.905		3/3/2011	EFI
	P0-12-CMU	Ground Floor	0-0.5"	12"	0.532		3/3/2011	EFI
	P0-13-CMU	Ground Floor	0-0.5"	12"	0.485		3/3/2011	EFI
	P0-14-CMU	Ground Floor	0-0.5"	12"	0.395		3/3/2011	EFI
	DUPLICATE-1	Ground Floor	0-0.5"	12"	0.458		3/3/2011	EFI
	P0-15-CMU	Ground Floor	0-0.5"	12"	0.523		3/3/2011	EFI
	P0-16-CMU	Ground Floor	0-0.5"	12"	0.418		3/3/2011	EFI
	DUPLICATE-2	Ground Floor	0-0.5"	12"	0.409		3/3/2011	EFI

TABLE 4
Summary of CMU Sample Analyses
Phase 2 Demolition
Salem State University Library
360 Lafayette Street
Salem, MA

	Sample ID	Location	Sample Depth	Distance from Caulk Joint	Concentration (ppm)	Coating	Date of Collection	Consultant
6 inches from Caulk Joint	PCB-100 CMU	Ground Floor	0-0.5"	6"	0.67		3/14/2012	EFI
	PCB-101 CMU	Ground Floor	0-0.5"	6"	2.97		3/14/2012	EFI
	PCB-102 CMU	Ground Floor	0-0.5"	6"	1.49		3/14/2012	EFI
	PCB-103 CMU	Ground Floor	0-0.5"	6"	1.098		3/14/2012	EFI
	PCB-104 CMU	Ground Floor	0-0.5"	6"	0.884		3/14/2012	EFI
	PCB-105 CMU	Ground Floor	0-0.5"	6"	1.426		3/14/2012	EFI
	PCB-116 CMU	Lower Level	0-0.5"	6"	1.472		3/14/2012	EFI
	PCB-117 CMU	Lower Level	0-0.5"	6"	0.433		3/14/2012	EFI
	PCB-118 CMU	Lower Level	0-0.5"	6"	1.116		3/14/2012	EFI
	DUPLICATE #2	Lower Level	0-0.5"	6"	1.62		3/14/2012	EFI
	PCB-119 CMU	Lower Level	0-0.5"	6"	0.845		3/14/2012	EFI
	PCB-120 CMU	Lower Level	0-0.5"	6"	1.393		3/14/2012	EFI
	PCB-121 CMU	Lower Level	0-0.5"	6"	0.972		3/14/2012	EFI
	PCB-122 CMU	Lower Level	0-0.5"	6"	0.694		3/14/2012	EFI
	PCB-123 CMU	Lower Level	0-0.5"	6"	0.842		3/14/2012	EFI
	PCB-124 CMU	First Floor	0-0.5"	6"	1.76		3/14/2012	EFI
	PCB-125 CMU	First Floor	0-0.5"	6"	1.94		3/14/2012	EFI
	PCB-126 CMU	Second Floor	0-0.5"	6"	1.70		3/14/2012	EFI
	PCB-127 CMU	Second Floor	0-0.5"	6"	0.564		3/14/2012	EFI
	PCB-128 CMU	First Floor	0-0.5"	6"	0.397		3/14/2012	EFI
	PCB-129 CMU	First Floor	0-0.5"	6"	0.963		3/14/2012	EFI
	PCB-130 CMU	Second Floor	0-0.5"	6"	1.24		3/14/2012	EFI
	DUPLICATE #4	Second Floor	0-0.5"	6"	1.72		3/14/2012	EFI
	PCB-131 CMU	Second Floor	0-0.5"	6"	4.08		3/14/2012	EFI
	PCB-132 CMU	Second Floor	0-0.5"	6"	1.30		3/14/2012	EFI
	PCB-133 CMU	First Floor	0-0.5"	6"	1.33		3/14/2012	EFI
	PCB-134 CMU	First Floor	0-0.5"	6"	0.33		3/14/2012	EFI
	PCB-135 CMU	First Floor	0-0.5"	6"	1.18		3/14/2012	EFI
	PCB-136 CMU	First Floor	0-0.5"	6"	1.44		3/14/2012	EFI
	PCB-137 CMU	First Floor	0-0.5"	6"	0.249		3/14/2012	EFI
	PCB-138 CMU	First Floor	0-0.5"	6"	0.36		3/14/2012	EFI
	PCB-139 CMU	First Floor	0-0.5"	6"	0.261		3/14/2012	EFI
	PCB-343 CMU	First Floor	0-0.5"	6"	0.357		3/22/2012	EFI
	PCB-344 CMU	First Floor	0-0.5"	6"	1.04		3/22/2012	EFI
	PCB-345 CMU	First Floor	0-0.5"	6"	1.18		3/22/2012	EFI
	PCB-346 CMU	First Floor	0-0.5"	6"	0.583		3/22/2012	EFI
	PCB-347 CMU	First Floor	0-0.5"	6"	0.247		3/22/2012	EFI
	PCB-348 CMU	First Floor	0-0.5"	6"	0.485		3/22/2012	EFI
	PCB-140 CMU	Second Floor	0-0.5"	6"	2.18		3/14/2012	EFI
	DUPLICATE #3	Second Floor	0-0.5"	6"	3.02		3/14/2012	EFI
	PCB-141 CMU	Second Floor	0-0.5"	6"	1.04		3/14/2012	EFI
	PCB-142 CMU	Second Floor	0-0.5"	6"	2.38		3/14/2012	EFI
	PCB-143 CMU	Second Floor	0-0.5"	6"	0.528		3/14/2012	EFI
	PCB-144 CMU	Second Floor	0-0.5"	6"	1.62		3/14/2012	EFI
	PCB-145 CMU	Second Floor	0-0.5"	6"	2.21		3/14/2012	EFI
	PCB-146 CMU	Second Floor	0-0.5"	6"	1.72		3/14/2012	EFI
	PCB-147 CMU	Second Floor	0-0.5"	6"	1.11		3/14/2012	EFI
	PCB-148 CMU	Second Floor	0-0.5"	6"	1.44		3/14/2012	EFI
	PCB-149 CMU	Second Floor	0-0.5"	6"	3.16		3/14/2012	EFI
	PCB-149 CMU (2)	Second Floor	0-0.5"	6"	3.71		4/5/2012	EFI
	PCB-150 CMU	Second Floor	0-0.5"	6"	1.79		3/14/2012	EFI
	PCB-151 CMU	Second Floor	0-0.5"	6"	0.326		3/15/2012	EFI
	DUPLICATE#5	Second Floor	0-0.5"	6"	0.506		3/15/2012	EFI
	PCB-152 CMU	Second Floor	0-0.5"	6"	0.46		3/15/2012	EFI
	DUPLICATE#6	Second Floor	0-0.5"	6"	0.599		3/15/2012	EFI
	PCB-153 CMU	Second Floor	0-0.5"	6"	1.69		3/15/2012	EFI
	PCB-154 CMU	Second Floor	0-0.5"	6"	0.616		3/15/2012	EFI
	PCB-155 CMU	Second Floor	0-0.5"	6"	0.622		3/15/2012	EFI
	PCB-156 CMU	Second Floor	0-0.5"	6"	0.603		3/15/2012	EFI
	PCB-157 CMU	Second Floor	0-0.5"	6"	0.97		3/15/2012	EFI
	PCB-158 CMU	Second Floor	0-0.5"	6"	0.609		3/15/2012	EFI
	PCB-159 CMU	Second Floor	0-0.5"	6"	1.48		3/15/2012	EFI
6 inches from Caulk Joint	PCB-160 CMU	Second Floor	0-0.5"	6"	0.82		3/15/2012	EFI
	PCB-161 CMU	Second Floor	0-0.5"	6"	0.882		3/15/2012	EFI
	PCB-349 CMU	Second Floor	0-0.5"	6"	0.557		3/23/2012	EFI
	PCB-350 CMU	Second Floor	0-0.5"	6"	1.047		3/23/2012	EFI
	PCB-351 CMU	Second Floor	0-0.5"	6"	0.716		3/23/2012	EFI
	PCB-352 CMU	Second Floor	0-0.5"	6"	1.06		3/23/2012	EFI
	PCB-353 CMU	Second Floor	0-0.5"	6"	1.33		3/23/2012	EFI
	PCB-162 CMU	Third Floor	0-0.5"	6"	1.04		3/15/2012	EFI
	PCB-163 CMU	Third Floor	0-0.5"	6"	1.16		3/15/2012	EFI
	PCB-164 CMU	Third Floor	0-0.5"	6"	0.575		3/15/2012	EFI
	PCB-165 CMU	Third Floor	0-0.5"	6"	1.91		3/15/2012	EFI
	PCB-166 CMU	Third Floor	0-0.5"	6"	1.98		3/15/2012	EFI
	PCB-167 CMU	Third Floor	0-0.5"	6"	2.72		3/15/2012	EFI
	PCB-167 CMU (2)	Third Floor	0-0.5"	6"	2.38		4/5/2012	EFI
	PCB-168 CMU	Third Floor	0-0.5"	6"	3.06		3/15/2012	EFI
	PCB-169 CMU	Third Floor	0-0.5"	6"	1.72		3/15/2012	EFI
	PCB-170 CMU	Third Floor	0-0.5"	6"	1.77		3/15/2012	EFI
	PCB-171 CMU	Third Floor	0-0.5"	6"	4.58		3/15/2012	EFI
	PCB-171 CMU (2)	Third Floor	0-0.5"	6"	21.9		4/5/2012	EFI
	PCB-172 CMU	Third Floor	0-0.5"	6"	1.40		3/15/2012	EFI
	PCB-173 CMU	Third Floor	0-0.5"	6"	3.26		3/15/2012	EFI
	PCB-174 CMU	Third Floor	0-0.5"	6"	0.61		3/15/2012	EFI
	PCB-175 CMU	Third Floor	0-0.5"	6"	0.513		3/15/2012	EFI
	PCB-176 CMU	Third Floor	0-0.5"	6"	1.03		3/15/2012	EFI
	DUPLICATE#8	Third Floor	0-0.5"	6"	0.609		3/15/2012	EFI
	PCB-177 CMU	Third Floor	0-0.5"	6"	0.71		3/15/2012	EFI
	PCB-178 CMU	Third Floor	0-0.5"	6"	1.01		3/15/2012	EFI
	PCB-179 CMU	Third Floor	0-0.5"	6"	13.1		3/15/2012	EFI

TABLE 4
Summary of CMU Sample Analyses
Phase 2 Demolition
Salem State University Library
360 Lafayette Street
Salem, MA

	Sample ID	Location	Sample Depth	Distance from Caulk Joint	Concentration (ppm)	Coating	Date of Collection	Consultant
6 inches from Caulk Joint	PCB-179 CMU (2)	Third Floor	0.0.5"	6"	11.3		4/5/2012	EFI
	PCB-180 CMU	Third Floor	0-0.5"	6"	2.28		3/15/2012	EFI
	PCB-181 CMU	Third Floor	0-0.5"	6"	1.68		3/15/2012	EFI
	PCB-182 CMU	Third Floor	0-0.5"	6"	1.18		3/15/2012	EFI
	PCB-183 CMU	Third Floor	0-0.5"	6"	0.802		3/15/2012	EFI
	PCB-184 CMU	Third Floor	0-0.5"	6"	1.11		3/15/2012	EFI
	DUPLICATE#7	Third Floor	0-0.5"	6"	0.857		3/15/2012	EFI
	PCB-185 CMU	Third Floor	0-0.5"	6"	0.952		3/15/2012	EFI
	PCB-186 CMU	Third Floor	0-0.5"	6"	0.657		3/15/2012	EFI
	PCB-187 CMU	Third Floor	0-0.5"	6"	4.45		3/15/2012	EFI
	PCB-188 CMU	Fourth Floor	0-0.5"	6"	4.59		3/15/2012	EFI
	PCB-189 CMU	Fourth Floor	0-0.5"	6"	6.49		3/15/2012	EFI
	PCB-189 CMU (2)	Fourth Floor	0-0.5"	6"	4.05		4/5/2012	EFI
	PCB-190 CMU	Fourth Floor	0-0.5"	6"	3.03		3/15/2012	EFI
	PCB-191 CMU	Fourth Floor	0-0.5"	6"	1.20		3/15/2012	EFI
	PCB-192 CMU	Fourth Floor	0-0.5"	6"	2.45		3/15/2012	EFI
	PCB-193 CMU	Fourth Floor	0-0.5"	6"	6.55		3/15/2012	EFI
	PCB-193 CMU (2)	Fourth Floor	0-0.5"	6"	3.84		4/5/2012	EFI
	PCB-194 CMU	Fourth Floor	0-0.5"	6"	4.26		3/15/2012	EFI
	PCB-194 CMU (2)	Fourth Floor	0-0.5"	6"	2.58		4/5/2012	EFI
	PCB-195 CMU	Fourth Floor	0-0.5"	6"	2.93		3/15/2012	EFI
	PCB-195 CMU (2)	Fourth Floor	0-0.5"	6"	4.79		4/5/2012	EFI
	PCB-196 CMU	Fourth Floor	0-0.5"	6"	2.78		3/15/2012	EFI
	PCB-196 CMU (2)	Fourth Floor	0-0.5"	6"	4.95		4/5/2012	EFI
	PCB-197 CMU	Fourth Floor	0-0.5"	6"	1.80		3/15/2012	EFI
	PCB-197 CMU (2)	Fourth Floor	0-0.5"	6"	1.94		4/5/2012	EFI
	PCB-198 CMU	Fourth Floor	0-0.5"	6"	4.23		3/15/2012	EFI
	PCB-198 CMU (2)	Fourth Floor	0-0.5"	6"	3.05		4/5/2012	EFI
	PCB-199 CMU	Fourth Floor	0-0.5"	6"	1.97		3/15/2012	EFI
	PCB-199 CMU (2)	Fourth Floor	0-0.5"	6"	4.06		4/5/2012	EFI
	PCB-200 CMU	Fourth Floor	0-0.5"	6"	1.94		3/15/2012	EFI
	PCB-200 CMU (2)	Fourth Floor	0-0.5"	6"	4.31		4/5/2012	EFI
	PCB-201 CMU	Fourth Floor	0-0.5"	6"	2.82		3/15/2012	EFI
	PCB-201 CMU (2)	Fourth Floor	0-0.5"	6"	3.59		4/5/2012	EFI
	PCB-202 CMU	Fourth Floor	0-0.5"	6"	7.32		3/15/2012	EFI
	PCB-202 CMU (2)	Fourth Floor	0-0.5"	6"	8.30		4/5/2012	EFI
	PCB-203 CMU	Fourth Floor	0-0.5"	6"	1.74		3/15/2012	EFI
	PCB-204 CMU	Fourth Floor	0-0.5"	6"	5.10		3/15/2012	EFI
	PCB-205 CMU	Fourth Floor	0-0.5"	6"	4.60		3/15/2012	EFI
	PCB-206 CMU	Fourth Floor	0-0.5"	6"	10.9		3/15/2012	EFI
	PCB-206 CMU (2)	Fourth Floor	0-0.5"	6"	4.36		4/5/2012	EFI
	PCB-207 CMU	Fourth Floor	0-0.5"	6"	4.46		3/15/2012	EFI
	PCB-208 CMU	Fourth Floor	0-0.5"	6"	4.11		3/15/2012	EFI
	PCB-209 CMU	Fourth Floor	0-0.5"	6"	5.93		3/15/2012	EFI
	PCB-210 CMU	Fourth Floor	0-0.5"	6"	2.0		3/15/2012	EFI
	PCB-211 CMU	Fourth Floor	0-0.5"	6"	3.60		3/15/2012	EFI
	PCB-212 CMU	Fourth Floor	0-0.5"	6"	2.72		3/15/2012	EFI
	DUPLICATE #9	Fourth Floor	0-0.5"	6"	4.36		3/15/2012	EFI
	PCB-213 CMU	Fourth Floor	0-0.5"	6"	7.22		3/15/2012	EFI
	PCB-213 CMU (2)	Fourth Floor	0-0.5"	6"	5.14		4/5/2012	EFI
	PCB-214 CMU	Fourth Floor	0-0.5"	6"	4.02		3/15/2012	EFI
	PCB-214 CMU (2)	Fourth Floor	0-0.5"	6"	5.44		4/5/2012	EFI
	PCB-215 CMU	Fourth Floor	0-0.5"	6"	3.70		3/15/2012	EFI
	PCB-215 CMU (2)	Fourth Floor	0-0.5"	6"	5.99		4/5/2012	EFI
	PCB-216 CMU	Fourth Floor	0-0.5"	6"	4.77		3/15/2012	EFI
	PCB-216 CMU (2)	Fourth Floor	0-0.5"	6"	5.06		4/5/2012	EFI
	PCB-217 CMU	Fourth Floor	0-0.5"	6"	2.95		3/15/2012	EFI
	PCB-217 CMU (2)	Fourth Floor	0-0.5"	6"	2.28		4/5/2012	EFI
	PCB-218 CMU	Fourth Floor	0-0.5"	6"	3.35		3/15/2012	EFI
	PCB-218 CMU (2)	Fourth Floor	0-0.5"	6"	4.02		4/5/2012	EFI
	PCB-219 CMU	Exterior - Roof	0-0.5"	6"	0.19		3/15/2012	EFI
	PCB-220 CMU	Exterior - Roof	0-0.5"	6"	0.0534(U)		3/15/2012	EFI
	PCB-221 CMU	Exterior - Roof	0-0.5"	6"	0.0568(U)		3/15/2012	EFI
	PCB-222 CMU	Exterior - Roof	0-0.5"	6"	0.0815		3/15/2012	EFI

NOTES:
(U) - PCBs not detected at the laboratory reporting limit listed for the sample.

TABLE 5
Summary of Brick Sample Analyses
Phase 2 Demolition
Salem State University Library
360 Lafayette Street
Salem, MA

Sample ID	Location	Sample Depth	Distance from Caulk Joint	Concentration (ppm)	Date of Collection	Consultant
109539	Ground floor loading dock, south elevation	3"	0-3"	0.12	4/15/2010	EHE
109548	Lower level, west elevation, under walkway	3"	0-3"	1.28	4/15/2010	EHE
PCB-010	First floor, reading room 104, west elevation	0-0.5"	3"	0.0586(U)	12/3/2009	EFI
PCB-044	First floor, south elevation	0-0.5"	1.5"	2.98	1/21/2010	EFI
PCB-051	First floor, north elevation	0-0.5"	1.5"	0.0604(U)	1/21/2010	EFI
PCB-055	First floor, reading room 104, east elevation	0-0.5"	1.5"	0.0631(U)	1/21/2010	EFI
PCB-059	First floor, east elevation	0-0.5"	1.5"	0.134	1/21/2010	EFI
109558	Fourth floor balcony, west elevation	3"	0-3"	0.24	4/15/2010	EHE
109559	Fourth floor, balcony, west elevation	3"	0-3"	0.24	4/15/2010	EHE
P1G-BRICK-COURSE 1	first course of brick adjacent to caulk seam	0-0.5"	3"	0.445	2/24/2011	EFI
P2E-BRICK-COURSE 1	first course of brick adjacent to caulk seam	0-0.5"	3"	6.12	2/24/2011	EFI
P2F-BRICK-COURSE 1	first course of brick adjacent to caulk seam	0-0.5"	3"	34.4	2/24/2011	EFI
P2G-BRICK-COURSE 1	first course of brick adjacent to caulk seam	0-0.5"	3"	6.09	2/24/2011	EFI
P2H-BRICK-COURSE 1	first course of brick adjacent to caulk seam	0-0.5"	3"	12.4	2/24/2011	EFI
P2I-BRICK-COURSE 1	first course of brick adjacent to caulk seam	0-0.5"	3"	17.9	2/24/2011	EFI
P2A-BRICK-COURSE 1	first course of brick adjacent to caulk seam	0-0.5"	3"	0.0581(U)	2/24/2011	EFI
P2D-BRICK-COURSE 1	first course of brick adjacent to caulk seam	0-0.5"	3"	0.0632(U)	2/24/2011	EFI
P3G-BRICK-COURSE 1	first course of brick adjacent to caulk seam	0-0.5"	3"	0.122	2/24/2011	EFI
P3H-BRICK-COURSE 1	first course of brick adjacent to caulk seam	0-0.5"	3"	0.0785	2/24/2011	EFI
P3I-BRICK-COURSE 1	first course of brick adjacent to caulk seam	0-0.5"	3"	0.0574(U)	2/24/2011	EFI
P4E-BRICK-COURSE 1	first course of brick adjacent to caulk seam	0-0.5"	3"	6.49	2/24/2011	EFI
P4F-BRICK-COURSE 1	first course of brick adjacent to caulk seam	0-0.5"	3"	4.66	2/24/2011	EFI
P4G-BRICK-COURSE 1	first course of brick adjacent to caulk seam	0-0.5"	3"	0.0725	2/24/2011	EFI
P4H-BRICK-COURSE 1	first course of brick adjacent to caulk seam	0-0.5"	3"	0.058(U)	2/24/2011	EFI
P4I-BRICK-COURSE 1	first course of brick adjacent to caulk seam	0-0.5"	3"	0.0831	2/24/2011	EFI
P4B-BRICK-COURSE 1	first course of brick adjacent to caulk seam	0-0.5"	3"	6.95	2/24/2011	EFI
P5A-BRICK-COURSE 1	first course of brick adjacent to caulk seam	0-0.5"	3"	0.067	2/24/2011	EFI
P5C-BRICK-COURSE 1	first course of brick adjacent to caulk seam	0-0.5"	3"	4.99	2/24/2011	EFI
P5H-BRICK-COURSE 1	first course of brick adjacent to caulk seam	0-0.5"	3"	0.0561(U)	2/24/2011	EFI
P5E-BRICK-COURSE 1	first course of brick adjacent to caulk seam	0-0.5"	3"	0.0534(U)	2/24/2011	EFI
P5F-BRICK-COURSE 1	first course of brick adjacent to caulk seam	0-0.5"	3"	5.81	2/24/2011	EFI
P5J-BRICK-COURSE 1	first course of brick adjacent to caulk seam	0-0.5"	3"	0.0538(U)	2/24/2011	EFI
P5I-BRICK-COURSE 1	first course of brick adjacent to caulk seam	0-0.5"	3"	0.098	2/24/2011	EFI
P5K-BRICK-COURSE 1	first course of brick adjacent to caulk seam	0-0.5"	3"	0.0576(U)	2/24/2011	EFI
P0A-BRICK-COURSE 1	first course of brick adjacent to caulk seam	0-0.5"	3"	0.339	3/3/2011	EFI
DUPLICATE-9	first course of brick adjacent to caulk seam	0-0.5"	3"	0.0551(U)	3/3/2011	EFI
P0E-BRICK-COURSE 1	first course of brick adjacent to caulk seam	0-0.5"	3"	0.0524(U)	3/3/2011	EFI
P0F-BRICK-COURSE 1	first course of brick adjacent to caulk seam	0-0.5"	3"	0.0575(U)	3/3/2011	EFI
P0H-BRICK-COURSE 1	first course of brick adjacent to caulk seam	0-0.5"	3"	0.0702	3/3/2011	EFI
P0I-BRICK-COURSE 1	first course of brick adjacent to caulk seam	0-0.5"	3"	0.0838	3/3/2011	EFI
DUPLICATE-4	first course of brick adjacent to caulk seam	0-0.5"	3"	0.0515(U)	3/3/2011	EFI
P0J-BRICK-COURSE 1	first course of brick adjacent to caulk seam	0-0.5"	3"	0.0752	3/3/2011	EFI
P0K-BRICK-COURSE 1	first course of brick adjacent to caulk seam	0-0.5"	3"	20.9	3/3/2011	EFI
DUPLICATE-6	first course of brick adjacent to caulk seam	0-0.5"	3"	4.48	3/3/2011	EFI
P0L-BRICK-COURSE 1	first course of brick adjacent to caulk seam	0-0.5"	3"	1.72	3/3/2011	EFI
P0M-BRICK-COURSE 1	first course of brick adjacent to caulk seam	0-0.5"	3"	5.97	3/3/2011	EFI
DUPLICATE-8	first course of brick adjacent to caulk seam	0-0.5"	3"	2.86	3/3/2011	EFI
P1G-BRICK-COURSE 2	second course of brick adjacent to caulk seam	0-0.5"	6"	0.0587(U)	2/24/2011	EFI
P2E-BRICK-COURSE 2	second course of brick adjacent to caulk seam	0-0.5"	6"	1.86	2/24/2011	EFI
P2F-BRICK-COURSE 2	second course of brick adjacent to caulk seam	0-0.5"	6"	0.0906	2/24/2011	EFI
P2G-BRICK-COURSE 2	second course of brick adjacent to caulk seam	0-0.5"	6"	0.789	2/24/2011	EFI
P2H-BRICK-COURSE 2	second course of brick adjacent to caulk seam	0-0.5"	6"	0.515	2/24/2011	EFI
P2I-BRICK-COURSE 2	second course of brick adjacent to caulk seam	0-0.5"	6"	1.43	2/24/2011	EFI
P2A-BRICK-COURSE 2	second course of brick adjacent to caulk seam	0-0.5"	6"	0.0556(U)	2/24/2011	EFI
P2D-BRICK-COURSE 2	second course of brick adjacent to caulk seam	0-0.5"	6"	0.058(U)	2/24/2011	EFI
P3G-BRICK-COURSE 2	second course of brick adjacent to caulk seam	0-0.5"	6"	0.0659	2/24/2011	EFI
P3H-BRICK-COURSE 2	second course of brick adjacent to caulk seam	0-0.5"	6"	0.0574(U)	2/24/2011	EFI
P3I-BRICK-COURSE 2	second course of brick adjacent to caulk seam	0-0.5"	6"	0.0554(U)	2/24/2011	EFI
P4E-BRICK-COURSE 2	second course of brick adjacent to caulk seam	0-0.5"	6"	0.132	2/24/2011	EFI
P4F-BRICK-COURSE 2	second course of brick adjacent to caulk seam	0-0.5"	6"	0.0562(U)	2/24/2011	EFI
P4G-BRICK-COURSE 2	second course of brick adjacent to caulk seam	0-0.5"	6"	0.053(U)	2/24/2011	EFI
P4H-BRICK-COURSE 2	second course of brick adjacent to caulk seam	0-0.5"	6"	0.0582(U)	2/24/2011	EFI
P4I-BRICK-COURSE 2	second course of brick adjacent to caulk seam	0-0.5"	6"	0.0536(U)	2/24/2011	EFI
P4B-BRICK-COURSE 2	second course of brick adjacent to caulk seam	0-0.5"	6"	1.45	2/24/2011	EFI
P5A-BRICK-COURSE 2	second course of brick adjacent to caulk seam	0-0.5"	6"	0.0531(U)	2/24/2011	EFI
P5C-BRICK-COURSE 2	second course of brick adjacent to caulk seam	0-0.5"	6"	0.152	2/24/2011	EFI
P5H-BRICK-COURSE 2	second course of brick adjacent to caulk seam	0-0.5"	6"	0.0516(U)	2/24/2011	EFI
P5E-BRICK-COURSE 2	second course of brick adjacent to caulk seam	0-0.5"	6"	0.0508(U)	2/24/2011	EFI
P5F-BRICK-COURSE 2	second course of brick adjacent to caulk seam	0-0.5"	6"	0.448	2/24/2011	EFI
P5J-BRICK-COURSE 2	second course of brick adjacent to caulk seam	0-0.5"	6"	0.0558(U)	2/24/2011	EFI
P5I-BRICK-COURSE 2	second course of brick adjacent to caulk seam	0-0.5"	6"	0.0562(U)	2/24/2011	EFI
P5K-BRICK-COURSE 2	second course of brick adjacent to caulk seam	0-0.5"	6"	0.0559(U)	2/24/2011	EFI
P0A-BRICK-COURSE 2	second course of brick adjacent to caulk seam	0-0.5"	6"	0.0545(U)	3/3/2011	EFI
P0E-BRICK-COURSE 2	second course of brick adjacent to caulk seam	0-0.5"	6"	0.0542(U)	3/3/2011	EFI
P0F-BRICK-COURSE 2	second course of brick adjacent to caulk seam	0-0.5"	6"	0.0528(U)	3/3/2011	EFI
DUPLICATE-3	second course of brick adjacent to caulk seam	0-0.5"	6"	0.0524(U)	3/3/2011	EFI
P0H-BRICK-COURSE 2	second course of brick adjacent to caulk seam	0-0.5"	6"	0.0533(U)	3/3/2011	EFI
P0I-BRICK-COURSE 2	second course of brick adjacent to caulk seam	0-0.5"	6"	0.0519(U)	3/3/2011	EFI
P0J-BRICK-COURSE 2	second course of brick adjacent to caulk seam	0-0.5"	6"	0.0528(U)	3/3/2011	EFI
DUPLICATE-5	second course of brick adjacent to caulk seam	0-0.5"	6"	0.0504(U)	3/3/2011	EFI
P0K-BRICK-COURSE 2	second course of brick adjacent to caulk seam	0-0.5"	6"	0.399	3/3/2011	EFI
P0L-BRICK-COURSE 2	second course of brick adjacent to caulk seam	0-0.5"	6"	0.26	3/3/2011	EFI
DUPLICATE-7	second course of brick adjacent to caulk seam	0-0.5"	6"	0.0582(U)	3/3/2011	EFI
P0M-BRICK-COURSE 2	second course of brick adjacent to caulk seam	0-0.5"	6"	0.0782	3/3/2011	EFI

TABLE 5
Summary of Brick Sample Analyses
Phase 2 Demolition
Salem State University Library
360 Lafayette Street
Salem, MA

Sample ID	Location	Sample Depth	Distance from Caulk Joint	Concentration (ppm)	Date of Collection	Consultant
PCB-106 BRICK	second course of brick adjacent to caulk seam	0-0.5"	6"	0.178	3/14/2012	EFI
PCB-107 BRICK	second course of brick adjacent to caulk seam	0-0.5"	6"	0.145	3/14/2012	EFI
PCB-108 BRICK	second course of brick adjacent to caulk seam	0-0.5"	6"	0.0802	3/14/2012	EFI
PCB-109 BRICK	second course of brick adjacent to caulk seam	0-0.5"	6"	0.099	3/14/2012	EFI
PCB-110 BRICK	second course of brick adjacent to caulk seam	0-0.5"	6"	0.05(U)	3/14/2012	EFI
DUPLICATE #1	second course of brick adjacent to caulk seam	0-0.5"	6"	0.0518(U)	3/14/2012	EFI
PCB-111 BRICK	second course of brick adjacent to caulk seam	0-0.5"	6"	0.392	3/14/2012	EFI
PCB-112 BRICK	second course of brick adjacent to caulk seam	0-0.5"	6"	2.82	3/14/2012	EFI
PCB-113 BRICK	second course of brick adjacent to caulk seam	0-0.5"	6"	0.424	3/14/2012	EFI
PCB-114 BRICK	second course of brick adjacent to caulk seam	0-0.5"	6"	0.134	3/14/2012	EFI
PCB-115 BRICK	second course of brick adjacent to caulk seam	0-0.5"	6"	0.0569(U)	3/14/2012	EFI
PCB-223 BRICK	second course of brick adjacent to caulk seam	0-0.5"	6"	0.736	3/15/2012	EFI
PCB-224 BRICK	second course of brick adjacent to caulk seam	0-0.5"	6"	0.0569(U)	3/15/2012	EFI
DUPLICATE #10	second course of brick adjacent to caulk seam	0-0.5"	6"	0.0607(U)	3/15/2012	EFI
PCB-225 BRICK	second course of brick adjacent to caulk seam	0-0.5"	6"	0.114	3/15/2012	EFI
PCB-226 BRICK	second course of brick adjacent to caulk seam	0-0.5"	6"	0.0617(U)	3/15/2012	EFI
PCB-227 BRICK	second course of brick adjacent to caulk seam	0-0.5"	6"	0.0596(U)	3/15/2012	EFI
DUPLICATE #11	second course of brick adjacent to caulk seam	0-0.5"	6"	0.0616(U)	3/15/2012	EFI
PCB-228 BRICK	second course of brick adjacent to caulk seam	0-0.5"	6"	0.059(U)	3/15/2012	EFI
DUPLICATE #12	second course of brick adjacent to caulk seam	0-0.5"	6"	0.0586(U)	3/15/2012	EFI
PCB-229 BRICK	second course of brick adjacent to caulk seam	0-0.5"	6"	0.119	3/15/2012	EFI
PCB-230 BRICK	second course of brick adjacent to caulk seam	0-0.5"	6"	0.055(U)	3/15/2012	EFI
PCB-364 BRICK	second course of brick adjacent to caulk seam	0-0.5"	6"	0.0543(U)	3/23/2012	EFI
DUPLICATE #26	second course of brick adjacent to caulk seam	0-0.5"	6"	0.0529(U)	3/23/2012	EFI
PCB-365 BRICK	second course of brick adjacent to caulk seam	0-0.5"	6"	0.0529(U)	3/23/2012	EFI
DUPLICATE #27	second course of brick adjacent to caulk seam	0-0.5"	6"	0.0546(U)	3/23/2012	EFI
PCB-366 BRICK	second course of brick adjacent to caulk seam	0-0.5"	6"	0.051(U)	3/23/2012	EFI
PCB-367 BRICK	second course of brick adjacent to caulk seam	0-0.5"	6"	0.0554(U)	3/23/2012	EFI
PCB-368 BRICK	second course of brick adjacent to caulk seam	0-0.5"	6"	0.0578(U)	3/23/2012	EFI
PCB-369 BRICK	second course of brick adjacent to caulk seam	0-0.5"	6"	0.0567(U)	3/23/2012	EFI
DUPLICATE #28	second course of brick adjacent to caulk seam	0-0.5"	6"	0.0534(U)	3/23/2012	EFI
PCB-370 BRICK	second course of brick adjacent to caulk seam	0-0.5"	6"	0.225	3/23/2012	EFI
PCB-371 BRICK	second course of brick adjacent to caulk seam	0-0.5"	6"	0.0579(U)	3/23/2012	EFI
PCB-372 BRICK	second course of brick adjacent to caulk seam	0-0.5"	6"	0.0563(U)	3/23/2012	EFI
PCB-373 BRICK	second course of brick adjacent to caulk seam	0-0.5"	6"	0.0581(U)	3/23/2012	EFI
PCB-374 BRICK	second course of brick adjacent to caulk seam	0-0.5"	6"	0.0508(U)	3/23/2012	EFI
PCB-375 BRICK	second course of brick adjacent to caulk seam	0-0.5"	6"	0.055(U)	3/23/2012	EFI

NOTES:
ppm - parts per million
(U) - PCBs not detected at the laboratory reporting limit listed for the sample.

TABLE 6
Summary of Concrete Sample Analyses
Phase 2 Demolition
Salem State University Library
360 Lafayette Street
Salem, MA

Sample ID	Location	Sample Depth	Distance from Caulk Joint	Concentration (ppm)	Date of Collection	Consultant
PCB-003	Interior	0-0.5"	1.5	93.5	12/3/2009	EFI
PCB-004	Interior	0.5-1"	1.5	0.779	12/3/2009	EFI
PCB-005	Interior	0-0.5"	3	12	12/3/2009	EFI
PCB-006	Exterior	0-0.5"	1.5	0.399(U)	12/3/2009	EFI
PCB-007	Exterior	0-0.5"	1.5	0.22	12/3/2009	EFI
PCB-013	Interior	0-0.5"	1.5	1.77	1/21/2010	EFI
PCB-014	Interior	0.5-1"	1.5	0.0807	1/21/2010	EFI
PCB-015	Interior	0-0.5"	3	1.11	1/21/2010	EFI
PCB-016	Interior	0-0.5"	Isolated	0.825	1/21/2010	EFI
PCB-017	Interior	0-0.5"	1.5	11	1/21/2010	EFI
PCB-018	Interior	0.5-1"	1.5	8.66	1/21/2010	EFI
PCB-019	Interior	0-0.5"	3	14.2	1/21/2010	EFI
PCB-022	Interior	0-0.5"	3	3.91	1/21/2010	EFI
PCB-023	Interior	0-0.5"	1.5	5.06	1/21/2010	EFI
PCB-024	Interior	0.5-1"	1.5	1.1	1/21/2010	EFI
PCB-025	Interior	0-0.5"	3	3.79	1/21/2010	EFI
PCB-028	Interior	0-0.5"	Isolated	0.76	1/21/2010	EFI
PCB-031	Interior	0-0.5"	Isolated	0.389	1/21/2010	EFI
PCB-032	Interior	0-0.5"	Isolated	0.738	1/21/2010	EFI
PCB-033	Interior	0-0.5"	Isolated	0.953	1/21/2010	EFI
PCB-034	Interior	0-0.5"	1.5	1.26	1/21/2010	EFI
PCB-035	Interior	0.5-1"	1.5	0.073(U)	1/21/2010	EFI
PCB-036	Interior	0-0.5"	3	0.945	1/21/2010	EFI
PCB-038	Interior	0-0.5"	1.5	1.051	1/21/2010	EFI
PCB-039	Interior	0.5-1"	1.5	0.0713(U)	1/21/2010	EFI
PCB-040	Interior	0-0.5"	3	1.028	1/21/2010	EFI
PCB-043	Interior	0-0.5"	Isolated	1.213	1/21/2010	EFI
PCB-045	Exterior	0-0.5"	1.5	2.05	1/21/2010	EFI
PCB-046	Exterior	0.5-1"	1.5	0.187	1/21/2010	EFI
PCB-047	Exterior	0-0.5"	3	0.462	1/21/2010	EFI
PCB-048	Exterior	0-0.5"	1.5	0.182(U)	1/21/2010	EFI
PCB-049	Exterior	0.5-1"	1.5	0.15(U)	1/21/2010	EFI
PCB-050	Exterior	0-0.5"	3	0.184(U)	1/21/2010	EFI
PCB-052	Exterior	0-0.5"	1.5	0.121(U)	1/21/2010	EFI
PCB-053	Exterior	0.5-1"	1.5	0.312(U)	1/21/2010	EFI
PCB-054	Exterior	0-0.5"	3	0.183(U)	1/21/2010	EFI
PCB-056	Exterior	0-0.5"	1.5	0.357	1/21/2010	EFI
PCB-057	Exterior	0.5-1"	1.5	0.299(U)	1/21/2010	EFI
PCB-058	Exterior	0-0.5"	3	0.217	1/21/2010	EFI
PCB-060	Exterior	0-0.5"	1.5	0.618	1/21/2010	EFI
PCB-061	Exterior	0-0.5"	1.5	0.925	1/21/2010	EFI
PCB-062	Exterior	0.5-1"	1.5	0.121(U)	1/21/2010	EFI
PCB-063	Exterior	0-0.5"	3	0.234	1/21/2010	EFI
PCB-064	Exterior	0-0.5"	1.5	0.22	1/21/2010	EFI
PCB-066	Ground Floor Column L/6	0-0.5"	Underneath	6.33	2/26/2010	EFI
PCB-067	Ground Floor Column L/6	1-1.5"	Underneath	0.0601(U)	2/26/2010	EFI
PCB-068	Ground Floor Column L/6	2-2.5"	Underneath	0.0594(U)	2/26/2010	EFI
PCB-069	Lower Level Column M/2	0-0.5"	Underneath	188	2/26/2010	EFI
PCB-070	Lower Level Column M/2	1-1.5"	Underneath	0.318	2/26/2010	EFI
PCB-071	Lower Level Column M/2	2-2.5"	Underneath	0.245	2/26/2010	EFI
PCB-072	1st Floor Column F/1	0-0.5"	Underneath	136	2/26/2010	EFI
PCB-073	1st Floor Column F/1	1-1.5"	Underneath	0.573	2/26/2010	EFI
PCB-074	1st Floor Column F/1	2-2.5"	Underneath	0.528	2/26/2010	EFI
PCB-075	1st Floor Column E/11	0-0.5"	Underneath	22.78	2/26/2010	EFI
PCB-076	1st Floor Column E/11	1-1.5"	Underneath	0.0599(U)	2/26/2010	EFI
PCB-077	1st Floor Column E/11	2-2.5"	Underneath	0.0598(U)	2/26/2010	EFI
PCB-078	2nd Floor Column H/4	0-0.5"	Underneath	745	2/26/2010	EFI
PCB-079	2nd Floor Column H/4	1-1.5"	Underneath	1.33	2/26/2010	EFI
PCB-080	2nd Floor Column H/4	2-2.5'	Underneath	0.6	2/26/2010	EFI
PCB-081	2nd Floor Column C/11	0-0.5"	Underneath	509	2/26/2010	EFI
PCB-082	2nd Floor Column C/11	1-1.5"	Underneath	1.3	2/26/2010	EFI
PCB-083	2nd Floor Column C/11	2-2.5"	Underneath	0.116	2/26/2010	EFI

TABLE 6
Summary of Concrete Sample Analyses
Phase 2 Demolition
Salem State University Library
360 Lafayette Street
Salem, MA

Sample ID	Location	Sample Depth	Distance from Caulk Joint	Concentration (ppm)	Date of Collection	Consultant
PCB-084	3rd Floor Column K/15	0-0.5"	Underneath	350	2/26/2010	EFI
PCB-085	3rd Floor Column K/15	1-1.5"	Underneath	0.3	2/26/2010	EFI
PCB-086	3rd Floor Column K/15	2-2.5"	Underneath	0.275	2/26/2010	EFI
PCB-087	3rd Floor Column M/3	0-0.5"	Underneath	679	2/26/2010	EFI
PCB-088	3rd Floor Column M/3	1-1.5'	Underneath	3.13	2/26/2010	EFI
PCB-089	3rd Floor Column M/3	2-2.5"	Underneath	0.561	2/26/2010	EFI
PCB-090	4th Floor Column N/7	0-0.5"	Underneath	474	2/26/2010	EFI
PCB-091	4th Floor Column N/7	1-1.5"	Underneath	0.484	2/26/2010	EFI
PCB-092	4th Floor Column N/7	2-2.5'	Underneath	1.24	2/26/2010	EFI
PCB-093	4th Floor Column C/14	0-0.5"	Underneath	302	2/26/2010	EFI
PCB-094	4th Floor Column C/14	1-1.5'	Underneath	2.27	2/26/2010	EFI
PCB-095	4th Floor Column C/14	2-2.5'	Underneath	0.616	2/26/2010	EFI
PCB-231 CONC 1-1.5"	Ground Floor	1-1.5"	Underneath	0.168(U)	3/20/2012	EFI
PCB-232 CONC 2-2.5"	Ground Floor	2-2.5"	Underneath	0.0587(U)	3/20/2012	EFI
PCB-233 CONC 1-1.5"	Ground Floor	1-1.5"	Underneath	0.146	3/20/2012	EFI
PCB-234 CONC 2-2.5"	Ground Floor	2-2.5"	Underneath	0.12(U)	3/20/2012	EFI
PCB-235 CONC 1-1.5"	Ground Floor	1-1.5"	Underneath	0.23(U)	3/20/2012	EFI
PCB-236 CONC 2-2.5"	Ground Floor	2-2.5"	Underneath	0.0586(U)	3/20/2012	EFI
PCB-237 CONC 1-1.5"	Ground Floor	1-1.5"	Underneath	0.0596(U)	3/20/2012	EFI
PCB-238 CONC 2-2.5"	Ground Floor	2-2.5"	Underneath	0.0602(U)	3/20/2012	EFI
PCB-239 CONC 1-1.5"	Ground Floor	1-1.5"	Underneath	0.06(U)	3/20/2012	EFI
PCB-240 CONC 2-2.5"	Ground Floor	2-2.5"	Underneath	0.0585(U)	3/20/2012	EFI
PCB-241 CONC 1-1.5"	Lower Level	1-1.5"	Underneath	0.206	3/20/2012	EFI
PCB-242 CONC 2-2.5"	Lower Level	2-2.5"	Underneath	0.214	3/20/2012	EFI
PCB-243 CONC 1-1.5"	Lower Level	1-1.5"	Underneath	0.275	3/20/2012	EFI
PCB-244 CONC 2-2.5"	Lower Level	2-2.5"	Underneath	0.0851	3/20/2012	EFI
PCB-245 CONC 1-1.5"	Fourth Floor	1-1.5"	Underneath	1.62	3/20/2012	EFI
PCB-246 CONC 2-2.5"	Fourth Floor	2-2.5"	Underneath	0.346	3/20/2012	EFI
PCB-247 CONC 1-1.5"	Fourth Floor	1-1.5"	Underneath	0.2(U)	3/20/2012	EFI
PCB-247 CONC 1-1.5" (R1)	Fourth Floor	1-1.5"	Underneath	0.498	3/20/2012	EFI
PCB-248 CONC 2-2.5"	Fourth Floor	2-2.5"	Underneath	0.192	3/20/2012	EFI
PCB-249 CONC 1-1.5"	Fourth Floor	1-1.5"	Underneath	1.6	3/20/2012	EFI
PCB-250 CONC 2-2.5"	Fourth Floor	2-2.5"	Underneath	2.02	3/20/2012	EFI
PCB-251 CONC 1-1.5"	Fourth Floor	1-1.5"	Underneath	2.89	3/20/2012	EFI
PCB-251 CONC 1-1.5" (2)	Fourth Floor	1-1.5"	Underneath	0.58	4/5/2012	EFI
PCB-252 CONC 2-2.5"	Fourth Floor	2-2.5"	Underneath	0.275	3/20/2012	EFI
PCB-253 CONC 1-1.5"	Fourth Floor	1-1.5"	Underneath	1.77	3/21/2012	EFI
PCB-254 CONC 2-2.5"	Fourth Floor	2-2.5"	Underneath	1.56	3/21/2012	EFI
PCB-255 CONC 1-1.5"	Fourth Floor	1-1.5"	Underneath	0.256	3/21/2012	EFI
PCB-256 CONC 2-2.5"	Fourth Floor	2-2.5"	Underneath	0.431	3/21/2012	EFI
PCB-257 CONC 1-1.5"	Fourth Floor	1-1.5"	Underneath	0.223	3/21/2012	EFI
DUPLICATE #13	Fourth Floor	1-1.5"	Underneath	1.03	3/21/2012	EFI
PCB-258 CONC 2-2.5"	Fourth Floor	2-2.5"	Underneath	0.207	3/21/2012	EFI
DUPLICATE #14	Fourth Floor	2-2.5"	Underneath	0.149	3/21/2012	EFI
PCB-259 CONC 1-1.5"	Fourth Floor	1-1.5"	Underneath	0.476	3/21/2012	EFI
DUPLICATE #15	Fourth Floor	1-1.5"	Underneath	0.306	3/21/2012	EFI
PCB-260 CONC 2-2.5"	Fourth Floor	2-2.5"	Underneath	0.136	3/21/2012	EFI
DUPLICATE #16	Fourth Floor	2-2.5"	Underneath	0.173(U)	3/21/2012	EFI
PCB-261 CONC 1-1.5"	Fourth Floor	1-1.5"	Underneath	0.25	3/21/2012	EFI
PCB-262 CONC 2-2.5"	Fourth Floor	2-2.5"	Underneath	0.224	3/21/2012	EFI
PCB-263 CONC 1-1.5"	Fourth Floor	1-1.5"	Underneath	4.03	3/21/2012	EFI
PCB-264 CONC 2-2.5"	Fourth Floor	2-2.5"	Underneath	0.198	3/21/2012	EFI
PCB-265 CONC 1-1.5"	Fourth Floor	1-1.5"	Underneath	0.152	3/21/2012	EFI
PCB-266 CONC 2-2.5"	Fourth Floor	2-2.5"	Underneath	0.171	3/21/2012	EFI
PCB-267 CONC 1-1.5"	Fourth Floor	1-1.5"	Underneath	0.791	3/21/2012	EFI
PCB-268 CONC 2-2.5"	Fourth Floor	2-2.5"	Underneath	1.27	3/21/2012	EFI
PCB-269 CONC 1-1.5"	Fourth Floor	1-1.5"	Underneath	0.367	3/21/2012	EFI
PCB-270 CONC 2-2.5"	Fourth Floor	2-2.5"	Underneath	0.409	3/21/2012	EFI
PCB-271 CONC 1-1.5"	Fourth Floor	1-1.5"	Underneath	1.35	3/21/2012	EFI
DUPLICATE #17	Fourth Floor	1-1.5"	Underneath	4.13	3/21/2012	EFI
PCB-272 CONC 2-2.5"	Fourth Floor	2-2.5"	Underneath	0.465	3/21/2012	EFI
DUPLICATE #18	Fourth Floor	2-2.5"	Underneath	0.313	3/21/2012	EFI

TABLE 6
Summary of Concrete Sample Analyses
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Salem State University Library
360 Lafayette Street
Salem, MA

Sample ID	Location	Sample Depth	Distance from Caulk Joint	Concentration (ppm)	Date of Collection	Consultant
PCB-273 CONC 1-1.5"	Fourth Floor	1-1.5"	Underneath	5.4	3/21/2012	EFI
PCB-274 CONC 2-2.5"	Fourth Floor	2-2.5"	Underneath	0.333	3/21/2012	EFI
PCB-275 CONC 1-1.5"	Fourth Floor	1-1.5"	Underneath	0.49	3/21/2012	EFI
PCB-276 CONC 2-2.5"	Fourth Floor	2-2.5"	Underneath	1.48	3/21/2012	EFI
PCB-277 CONC 1-1.5"	Fourth Floor	1-1.5"	Underneath	2.39	3/21/2012	EFI
PCB-278 CONC 2-2.5"	Fourth Floor	2-2.5"	Underneath	2.73	3/21/2012	EFI
PCB-279 CONC 1-1.5"	Fourth Floor	1-1.5"	Underneath	4.92	3/21/2012	EFI
PCB-280 CONC 2-2.5"	Fourth Floor	2-2.5"	Underneath	0.423	3/21/2012	EFI
PCB-281 CONC 1-1.5"	Fourth Floor	1-1.5"	Underneath	1.02	3/21/2012	EFI
PCB-282 CONC 2-2.5"	Fourth Floor	2-2.5"	Underneath	0.0544(U)	3/21/2012	EFI
PCB-283 CONC 1-1.5"	Fourth Floor	1-1.5"	Underneath	1.06	3/21/2012	EFI
PCB-284 CONC 2-2.5"	Fourth Floor	2-2.5"	Underneath	0.302	3/21/2012	EFI
PCB-285 CONC 1-1.5"	Fourth Floor	1-1.5"	Underneath	0.635	3/21/2012	EFI
PCB-286 CONC 2-2.5"	Fourth Floor	2-2.5"	Underneath	0.212	3/21/2012	EFI
PCB-287 CONC 1-1.5"	Fourth Floor	1-1.5"	Underneath	3.85	3/21/2012	EFI
PCB-288 CONC 2-2.5"	Fourth Floor	2-2.5"	Underneath	1.61	3/21/2012	EFI
PCB-289 CONC 1-1.5"	Fourth Floor	1-1.5"	Underneath	0.745	3/21/2012	EFI
PCB-290 CONC 2-2.5"	Fourth Floor	2-2.5"	Underneath	0.119	3/21/2012	EFI
PCB-291 CONC 1-1.5"	Fourth Floor	1-1.5"	Underneath	0.348	3/21/2012	EFI
PCB-292 CONC 2-2.5"	Fourth Floor	2-2.5"	Underneath	0.184	3/21/2012	EFI
PCB-293 CONC 1-1.5"	Fourth Floor	1-1.5"	Underneath	2.12	3/21/2012	EFI
PCB-294 CONC 2-2.5"	Fourth Floor	2-2.5"	Underneath	0.356	3/21/2012	EFI
PCB-295 CONC 1-1.5"	Third Floor	1-1.5"	Underneath	1.37	3/22/2012	EFI
PCB-296 CONC 2-2.5"	Third Floor	2-2.5"	Underneath	0.422	3/22/2012	EFI
PCB-297 CONC 1-1.5"	Third Floor	1-1.5"	Underneath	0.154	3/22/2012	EFI
DUPLICATE #19	Third Floor	1-1.5"	Underneath	0.294	3/22/2012	EFI
PCB-298 CONC 2-2.5"	Third Floor	2-2.5"	Underneath	0.209	3/22/2012	EFI
DUPLICATE #20	Third Floor	2-2.5"	Underneath	0.121	3/22/2012	EFI
PCB-299 CONC 1-1.5"	Third Floor	1-1.5"	Underneath	0.0571(U)	3/22/2012	EFI
PCB-300 CONC 2-2.5"	Third Floor	2-2.5"	Underneath	0.375(U)	3/22/2012	EFI
PCB-301 CONC 1-1.5"	Third Floor	1-1.5"	Underneath	0.0551(U)	3/22/2012	EFI
PCB-302 CONC 2-2.5"	Third Floor	2-2.5"	Underneath	0.212(U)	3/22/2012	EFI
PCB-303 CONC 1-1.5"	Third Floor	1-1.5"	Underneath	0.0571(U)	3/22/2012	EFI
PCB-305 CONC 1-1.5"	Third Floor	1-1.5"	Underneath	0.0511(U)	3/22/2012	EFI
PCB-306 CONC 2-2.5"	Third Floor	2-2.5"	Underneath	0.161(U)	3/22/2012	EFI
PCB-307 CONC 1-1.5"	Third Floor	1-1.5"	Underneath	0.269	3/22/2012	EFI
PCB-308 CONC 2-2.5"	Third Floor	2-2.5"	Underneath	0.129(U)	3/22/2012	EFI
PCB-309 CONC 1-1.5"	Third Floor	1-1.5"	Underneath	0.165	3/22/2012	EFI
PBC-310 CONC 2-2.5"	Third Floor	2-2.5"	Underneath	0.627(U)	3/22/2012	EFI
PBC-311 CONC 1-1.5"	Third Floor	1-1.5"	Underneath	0.218(U)	3/22/2012	EFI
PCB-312 CONC 2-2.5"	Third Floor	2-2.5"	Underneath	0.341	3/22/2012	EFI
PCB-313 CONC 1-1.5"	Third Floor	1-1.5"	Underneath	0.0596	3/22/2012	EFI
DUPLICATE #21	Third Floor	1-1.5"	Underneath	0.281(U)	3/22/2012	EFI
PCB-315 CONC 1-1.5"	Third Floor	1-1.5"	Underneath	0.318(U)	3/22/2012	EFI
DUPLICATE #22	Third Floor	2-2.5"	Underneath	0.342(U)	3/22/2012	EFI
PCB-316 CONC 2-2.5"	Third Floor	2-2.5"	Underneath	0.281(U)	3/22/2012	EFI
PCB-317 CONC 1-1.5"	Third Floor	1-1.5"	Underneath	0.0555(U)	3/22/2012	EFI
DUPLICATE #23	Third Floor	1-1.5"	Underneath	0.114	3/22/2012	EFI
PCB-318 CONC 2-2.5"	Third Floor	2-2.5"	Underneath	0.216(U)	3/22/2012	EFI
PCB-319 CONC 1-1.5"	Third Floor	1-1.5"	Underneath	0.108(U)	3/22/2012	EFI
DUPLICATE #24	Third Floor	1-1.5"	Underneath	0.152(U)	3/22/2012	EFI
PCB-320 CONC 2-2.5"	Third Floor	2-2.5"	Underneath	0.455(U)	3/22/2012	EFI
PCB-321 CONC 1-1.5"	Third Floor	1-1.5"	Underneath	0.274(U)	3/22/2012	EFI

TABLE 6
Summary of Concrete Sample Analyses
Phase 2 Demolition
Salem State University Library
360 Lafayette Street
Salem, MA

Sample ID	Location	Sample Depth	Distance from Caulk Joint	Concentration (ppm)	Date of Collection	Consultant
PCB-322 CONC 2-2.5"	Third Floor	2-2.5"	Underneath	0.278(U)	3/22/2012	EFI
PCB-323 CONC 1-1.5"	Third Floor	1-1.5"	Underneath	1.97	3/22/2012	EFI
PCB-324 CONC 2-2.5"	Third Floor	2-2.5"	Underneath	0.504	3/22/2012	EFI
PCB-325 CONC 1-1.5"	Third Floor	1-1.5"	Underneath	5.21	3/22/2012	EFI
PCB-326 CONC 2-2.5"	Third Floor	2-2.5"	Underneath	1.08	3/22/2012	EFI
PCB-327 CONC 1-1.5"	Third Floor	1-1.5"	Underneath	1.45	3/22/2012	EFI
PCB-328 CONC 2-2.5"	Third Floor	2-2.5"	Underneath	0.394(U)	3/22/2012	EFI
PCB-329 CONC 1-1.5"	Third Floor	1-1.5"	Underneath	1.95	3/22/2012	EFI
PCB-330 CONC 2-2.5"	Third Floor	2-2.5"	Underneath	1.92	3/22/2012	EFI
PCB-331 CONC 1-1.5"	Third Floor	1-1.5"	Underneath	0.325(U)	3/22/2012	EFI
PCB-332 CONC 2-2.5"	Third Floor	2-2.5"	Underneath	1.14	3/22/2012	EFI
PCB-333 CONC 1-1.5"	Third Floor	1-1.5"	Underneath	0.752	3/22/2012	EFI
PCB-334 CONC 2-2.5"	Third Floor	2-2.5"	Underneath	0.285	3/22/2012	EFI
PCB-335 CONC 1-1.5"	Third Floor	1-1.5"	Underneath	1.21	3/22/2012	EFI
PCB-336 CONC 2-2.5"	Third Floor	2-2.5"	Underneath	2.28	3/22/2012	EFI
PCB-339 CONC 1-1.5"	Third Floor	1-1.5"	Underneath	0.226(U)	3/22/2012	EFI
PCB-340 CONC 2-2.5"	Third Floor	2-2.5"	Underneath	0.338(U)	3/22/2012	EFI
PCB-341 CONC 1-1.5"	Third Floor	1-1.5"	Underneath	0.718	3/22/2012	EFI
PCB-342 CONC 2-2.5"	Third Floor	2-2.5"	Underneath	4.63	3/22/2012	EFI
PCB-354 CONC 1-1.5"	First Floor	1-1.5"	Underneath	1.69	3/23/2012	EFI
PCB-355 CONC 2-2.5"	First Floor	2-2.5"	Underneath	0.525	3/23/2012	EFI
PCB-356 CONC 1-1.5"	First Floor	1-1.5"	Underneath	0.0563(U)	3/23/2012	EFI
PCB-357 CONC 2-2.5"	First Floor	2-2.5"	Underneath	0.0525(U)	3/23/2012	EFI
PCB-358 CONC 1-1.5"	First Floor	1-1.5"	Underneath	0.956	3/23/2012	EFI
PCB-359 CONC 2-2.5"	First Floor	2-2.5"	Underneath	0.33	3/23/2012	EFI
PCB-360 CONC 1-1.5"	First Floor	1-1.5"	Underneath	0.166(U)	3/23/2012	EFI
DUPLICATE #25	First Floor	1-1.5"	Underneath	0.112(U)	3/23/2012	EFI
PCB-361 CONC 2-2.5"	First Floor	2-2.5"	Underneath	0.0544(U)	3/23/2012	EFI
PCB-362 CONC 1-1.5"	First Floor	1-1.5"	Underneath	1.65	3/23/2012	EFI
PCB-363 CONC 2-2.5"	First Floor	2-2.5"	Underneath	1.03	3/23/2012	EFI
PCB-376 CONC 1-1.5"	First Floor	1-1.5"	Underneath	2.73	3/23/2012	EFI
PCB-377 CONC 2-2.5"	First Floor	2-2.5"	Underneath	1.7	3/23/2012	EFI
PCB-378 CONC 1-1.5"	First Floor	1-1.5"	Underneath	5.34	3/23/2012	EFI
PCB-379 CONC 2-2.5"	First Floor	2-2.5"	Underneath	8.32	3/23/2012	EFI
PCB-380 CONC 1-1.5"	Second Floor	1-1.5"	Underneath	1.97	3/23/2012	EFI
PCB-381 CONC 2-2.5"	Second Floor	2-2.5"	Underneath	1.71	3/23/2012	EFI
PCB-382 CONC 1-1.5"	Second Floor	1-1.5"	Underneath	0.702	3/23/2012	EFI
PCB-383 CONC 2-2.5"	Second Floor	2-2.5"	Underneath	0.3	3/23/2012	EFI
PCB-384 CONC 1-1.5"	Second Floor	1-1.5"	Underneath	0.442	3/23/2012	EFI
PCB-385 CONC 2-2.5"	Second Floor	2-2.5"	Underneath	0.37	3/23/2012	EFI
PCB-386 CONC 1-1.5"	Second Floor	1-1.5"	Underneath	1.24	3/23/2012	EFI
PCB-387 CONC 2-2.5"	Second Floor	2-2.5"	Underneath	5.49	3/23/2012	EFI
PCB-388 CONC 1-1.5"	Second Floor	1-1.5"	Underneath	4.89	3/23/2012	EFI
PCB-389 CONC 2-2.5"	Second Floor	2-2.5"	Underneath	0.187(U)	3/23/2012	EFI
PCB-390 CONC 1-1.5"	Second Floor	1-1.5"	Underneath	4.46	3/23/2012	EFI
PCB-391 CONC 2-2.5"	Second Floor	2-2.5"	Underneath	0.44	3/23/2012	EFI
PCB-392 CONC 1-1.5"	Second Floor	1-1.5"	Underneath	0.474	3/23/2012	EFI
PCB-393 CONC 2-2.5"	Second Floor	2-2.5"	Underneath	0.334	3/23/2012	EFI
PCB-394 CONC 1-1.5"	Second Floor	1-1.5"	Underneath	0.441	3/23/2012	EFI
PCB-395 CONC 2-2.5"	Second Floor	2-2.5"	Underneath	0.689	3/23/2012	EFI
PCB-396 CONC 1-1.5"	Second Floor	1-1.5"	Underneath	0.717	3/23/2012	EFI
PCB-397 CONC 2-2.5"	Second Floor	2-2.5"	Underneath	0.777	3/23/2012	EFI
PCB-398 CONC 1-1.5"	Second Floor	1-1.5"	Underneath	0.885	3/23/2012	EFI
PCB-399 CONC 2-2.5"	Second Floor	2-2.5"	Underneath	0.753	3/23/2012	EFI
PCB-400 CONC 1-1.5"	Second Floor	1-1.5"	Underneath	0.898	3/23/2012	EFI
PCB-401 CONC 2-2.5"	Second Floor	2-2.5"	Underneath	0.692	3/23/2012	EFI
PCB-402 CONC 1-1.5"	Second Floor	1-1.5"	Underneath	4.27	3/23/2012	EFI
PCB-403 CONC 2-2.5"	Second Floor	2-2.5"	Underneath	0.391	3/23/2012	EFI

NOTES:
ppm - parts per million
(U) - PCBs not detected at the laboratory reporting limit listed for the sample.

TABLE 7
Co-Located Sample Results for Polychlorinated Biphenyls
Phase 2 Demolition
Salem State University
360 Lafayette Street
Salem, MA

Exterior Sample Locations	Caulking (ppm)[1]		Brick Core Sample (ppm)[1]		Concrete Core Sample (ppm)[1]		TCLP Brick (µg/L)[2]		TCLP Concrete (µg/L)[2]	
	Sample ID	Result	Sample ID	Result	Sample ID	Result	Sample ID	Result	Sample ID	Result
Loading dock area, south elevation	109541	180 (2C 160)	109539	BRL <0.12	109540	0.1 (1C 0.1)	109566	BRL <0.12	-	-
Lower level, west elevation, under walkway	109546	3,600 (2C 2,560)	109548	1.28 (2C 0.9)	109549	0.31 (2C 0.2)	109550	BRL <0.02	109551	BRL <0.02
Fourth floor balcony west elevation	109552	320 (2C 300)	109558	0.24 (2C .22)	109556	0.05 (1C .05)	109561	BRL <0.02	109560	1.1 (2C 1.1)
	109554	390 -Duplicate (2C 360)	109559	0.29 -Duplicate (2C .25)	109557	0.05-Duplicate (1C .05)	-	-	-	-

Interior Sample Locations	Caulking (ppm)[1]		CMU Core Sample (ppm)[1]		Concrete Core Sample (ppm)[1]		TCLP Brick (µg/L)[2]		TCLP Concrete (µg/L)[2]	
	Sample ID	Result	Sample ID	Result	Sample ID	Result	Sample ID	Result	Sample ID	Result
First Floor, reference room near southwest corner	109621	27,000 (1C 26,000)	109618	280) (2C 280)	109617	71 (2C 70)	109620	2.6 (1C 2.6)	109619	6.1 (1C 6.1)
Third floor, room 320, southeast column	109623	520 (1C 510)	109625	4.8 (1C 4.8)	109624	1.5 (1C 1.3)	109627	0.3 (2C 0.2)	109626	0.9 (1C 0.9)
Fourth floor, room 404, column	109628	31,000 (1C 29,000)	109631 109632	130 92-Duplicate	109329	19 (1C 19)	-	-	-	-

ppm - parts per million
TCLP - toxicity characteristic leaching procedure
(µg/L) - micrograms per liter
BRL - below reporting levels
CMU - concrete masonry unit

[1]: PCB concentration analysis performed by Groundwater Analytical, Inc., using U.S. Environmental Protection Agency (EPA) method 8082 (GC/ECD).
[2]: TCLP analysis performed by Groundwater Analytical, Inc., using Test Methods for Evaluation Solid Waste, U.S. Environmental Protection Agency (EPA), SW-846, Third Edition, Update III (1986). Sample Extraction performed by (EPA) method 3501C (GC/ECD).

Notes: All sample results are reported in total PCBs, Aroclor 1016, 1221, 1232, 1242, 1248, 1254, and 1260. Sample depth nominally 3-inches directly underneath caulk line.

1C: Confirmation concentration reported from first column quantification.
2C: Confirmation concentration reported form second column quantification.

Table 8
Concrete Waffle Slab Results
Salem State University Library
360 Lafayette Street
Salem, MA

Sample ID	Location	Approximate Distance From Caulk Joint (Feet)	Painted	Date of Collection	Concentration (ppm)
PCB-096	4th Floor - Floor	N/A	No	3/31/2011	0.766(U)
PCB-097	4th Floor - Floor	N/A	No	3/31/2011	0.228(U)
PCB-100	3rd Floor - Floor	N/A	No	3/31/2011	0.136(U)
PCB-101	3rd Floor - Floor	N/A	No	3/31/2011	0.0666(U)
PCB-104	2nd Floor - Floor	N/A	No	3/31/2011	0.414
PCB-DUP1-33111	2nd Floor - Floor	N/A	No	3/31/2011	0.785(U)
PCB-105	2nd Floor - Floor	N/A	No	3/31/2011	0.309(U)
PCB-108	1st Floor - Floor	N/A	No	3/31/2011	0.391(U)
PCB-109	1st Floor - Floor	N/A	No	3/31/2011	0.307(U)
PCB-110	Lower Level - Floor	N/A	No	3/31/2011	0.583
PCB-111	Lower Level - Floor	N/A	No	3/31/2011	1.04(U)
PCB-098	4th Floor - Ceiling (Roof Deck)	20	No	3/31/2011	2.31
PCB-099	4th Floor - Ceiling (Roof Deck)	20	No	3/31/2011	2.34
PCB-102	3rd Floor - Ceiling	15	No	3/31/2011	1.18
PCB-103	3rd Floor - Ceiling	15	Yes	3/31/2011	1.3
PCB-106	2nd Floor - Ceiling	15	Yes	3/31/2011	2.68
PCB-107	2nd Floor - Ceiling	10	No	3/31/2011	1.05
PCB-112	Lower Level - Ceiling	20	No	3/31/2011	0.27
PCB-DUP2-33111	Lower Level - Ceiling	20	No	3/31/2011	0.324
PCB-113	Lower Level - Ceiling	10	No	3/31/2011	0.28
PCB-114	Ground Floor - Ceiling	5	No	3/31/2011	0.446
PCB-115	Ground Floor - Ceiling	5	No	3/31/2011	0.538

N/A - Not Applicable - No caulk on floor in vicinity of floor concrete samples.
U - Not detected at the reported detection limit for the sample.

TABLE 9
Summary of Air Sampling Program
Phase 2 Demolition
Salem State University Library
360 Lafayette Street
Salem, MA

Location/Sample Type	Monitoring Parameters	Frequency	Analyses
Perimeter Air: One upwind, two downwind stations	• Real-time dust • Asbestos fibers • PCBs	**Dust:** Continuous logging of readings from each perimeter station **Asbestos:** one sample per four hour period from each perimeter station PCBs: 1 sample round per week, 6-8 hr. time-integrated sampling period, nominal detection limit $\leq$ 10ng/m^3	**Dust:** PM-10 **Asbestos:** PCM PCBs: U.S.E.P.A. Method TO-10A
Worker: Personal air pump/cartridge	• Asbestos	**Asbestos:** One sample per work shift or for eight hours, whichever is less from each work-zone staff	**Asbestos:** PCM

TABLE 10
Quality Assurance and Control by Media
Phase 2 Demolition
Salem State University Library
360 Lafayette Street
Salem, MA

Data Quality Indicators	Measurement Performance Criteria	QC Sample and/or Activity Used to Assess Measurement Performance	Frequency
Matrix Bulk Samples			
Precision—Overall	±45%	Field Duplicates	Minimum: One per group or 10% of samples
Precision—Laboratory	±45%	1. Matrix Spike 2. Matrix Spike Duplicates	Minimum: One per analysis.
Accuracy/Bias	±45%	1. Matrix Spike 2. Matrix Spike Duplicates	Minimum: One per analysis.
Accuracy/Bias	Acceptable quality control range based on analytical technique	Laboratory Control (PE) Samples	Double column GC Surrogate Compound
Accuracy/Bias—Contamination	No target analytes above laboratory quantification limit with the exception of common field/laboratory contaminants	1. Equipment Blanks 2. Method Blanks	Minimum: One per group
Comparability	Not applicable	Comparability Check	Double column GC
Data Completeness	90% Overall	Data Completeness Check	
Sensitivity	±100%	1. Laboratory fortified Blank 2. Low Calibration Standard	Minimum: One per group or 10% of samples
Matrix Wipe Samples			
Precision—Overall	±45%	Field duplicates	Minimum: One per group or 10% of samples
Precision—Laboratory	±45%	1. Matrix spike 2. Matrix spike duplicates	Minimum: One per analysis.
Accuracy/bias	Acceptable quality control range based on analytical technique	Laboratory control samples Surrogate compound	Minimum: One per group or 10% of samples
Accuracy/bias-contamination	No target analytes above laboratory quantification limit with the exception of common field/laboratory contaminants	1. Equipment blanks 2. Method blanks	Minimum: One per group
Comparability	Not applicable	Comparability check	Double column GC
Data completeness	90% overall	Data completeness check	
Sensitivity	±100%	1. Laboratory fortified blank 2. Low calibration standard	Minimum: One per group (20 samples)

QC quality control
GC gas chromatography

APPENDIX A:

Figures

AERIAL IMAGERY FROM OFFICE OF GEOGRAPHIC AND ENVIRONMENTAL INFORMATION (MASSGIS), COMMONWEALTH OF MASSACHUSETTS EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS

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MA STATE PROJECT NO.: SSA0701-DC3

PHASE 2 DEMOLITION

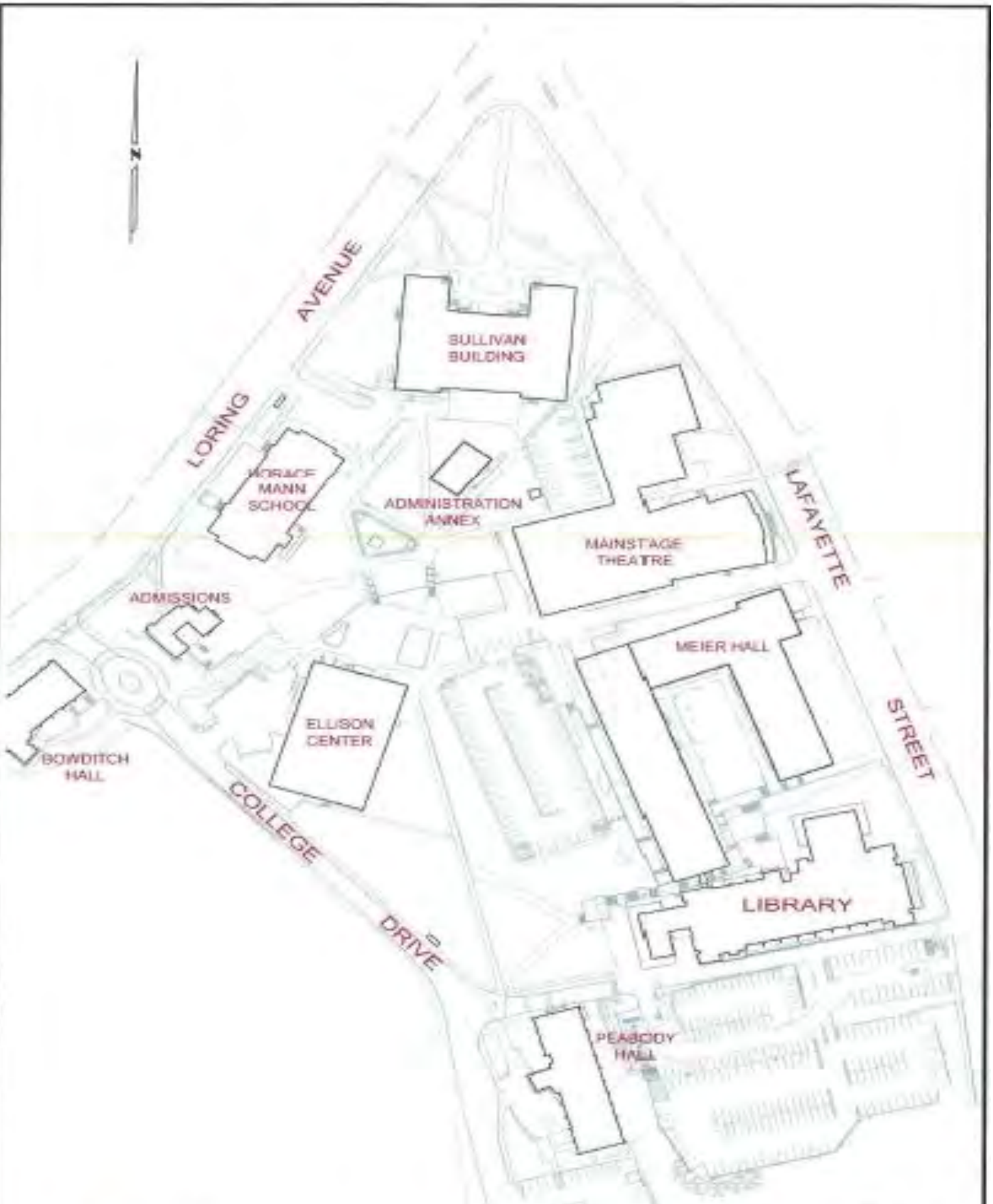
SALEM STATE UNIVERSITY

SALEM, MASSACHUSETTS

FIGURE 1

SITE LOCUS PLAN

August 2012



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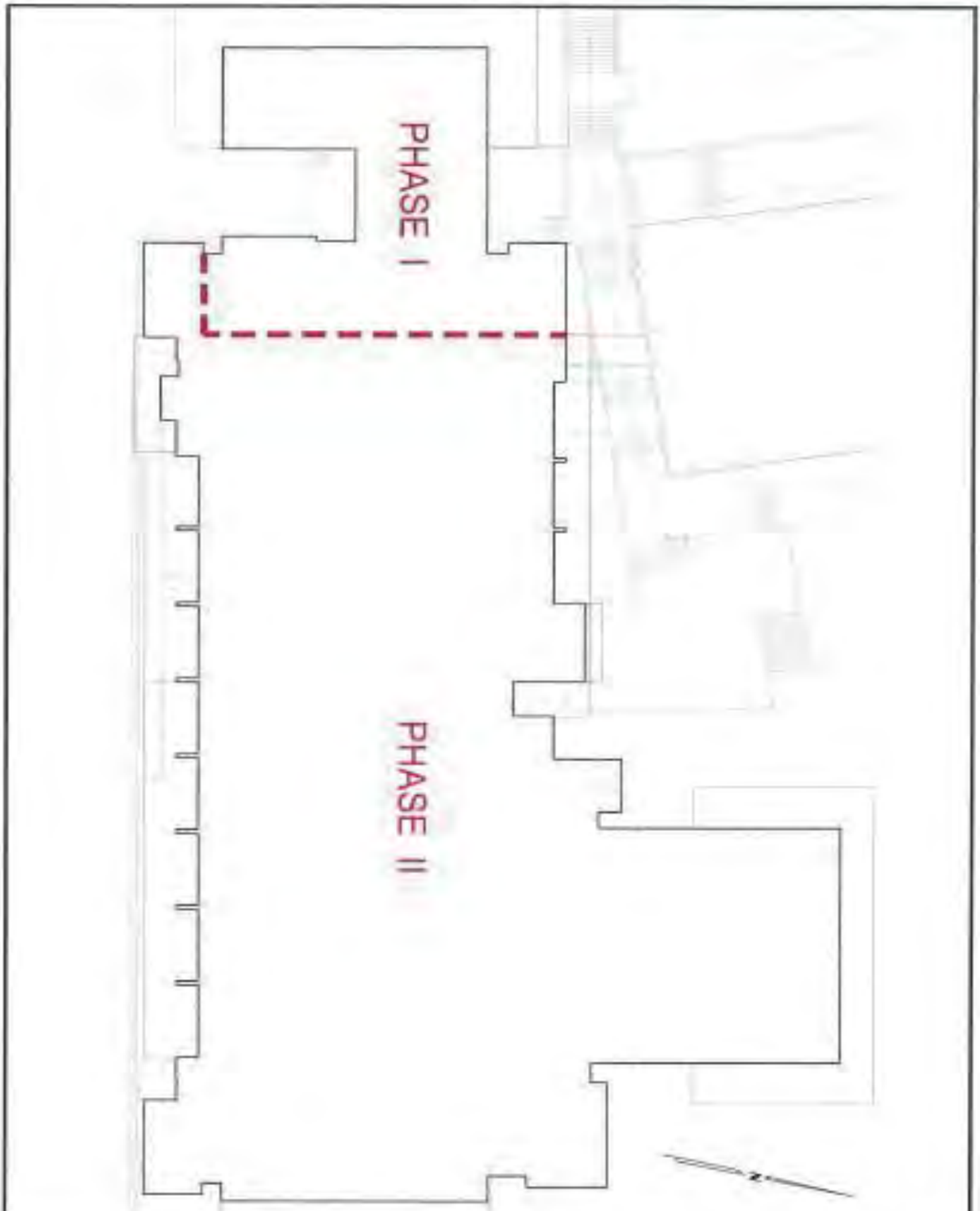
PHASE 2 DEMOLITION
SALEM STATE UNIVERSITY
SALEM, MASSACHUSETTS

FIGURE 2
SITE PLAN
August 2012



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PHASE 2 DEMOLITION
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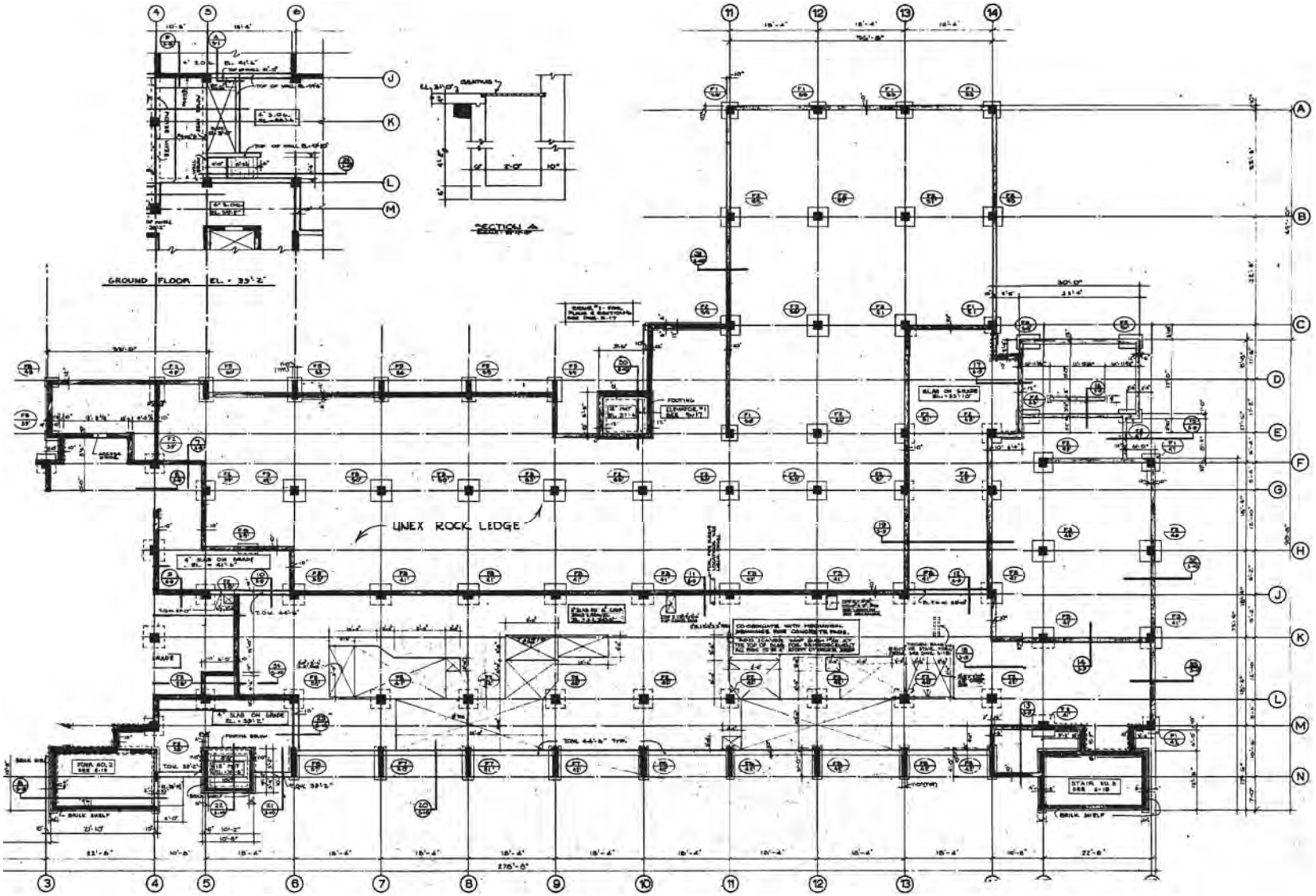
SALEM, MASSACHUSETTS

FIGURE 3
BUILDING PHASE PLAN
August 2012



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Phase 2 Demolition
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360 Lafayette St. – Salem, MA

Project:

FOUNDATION AND GROUND FLOOR PLAN

Title:

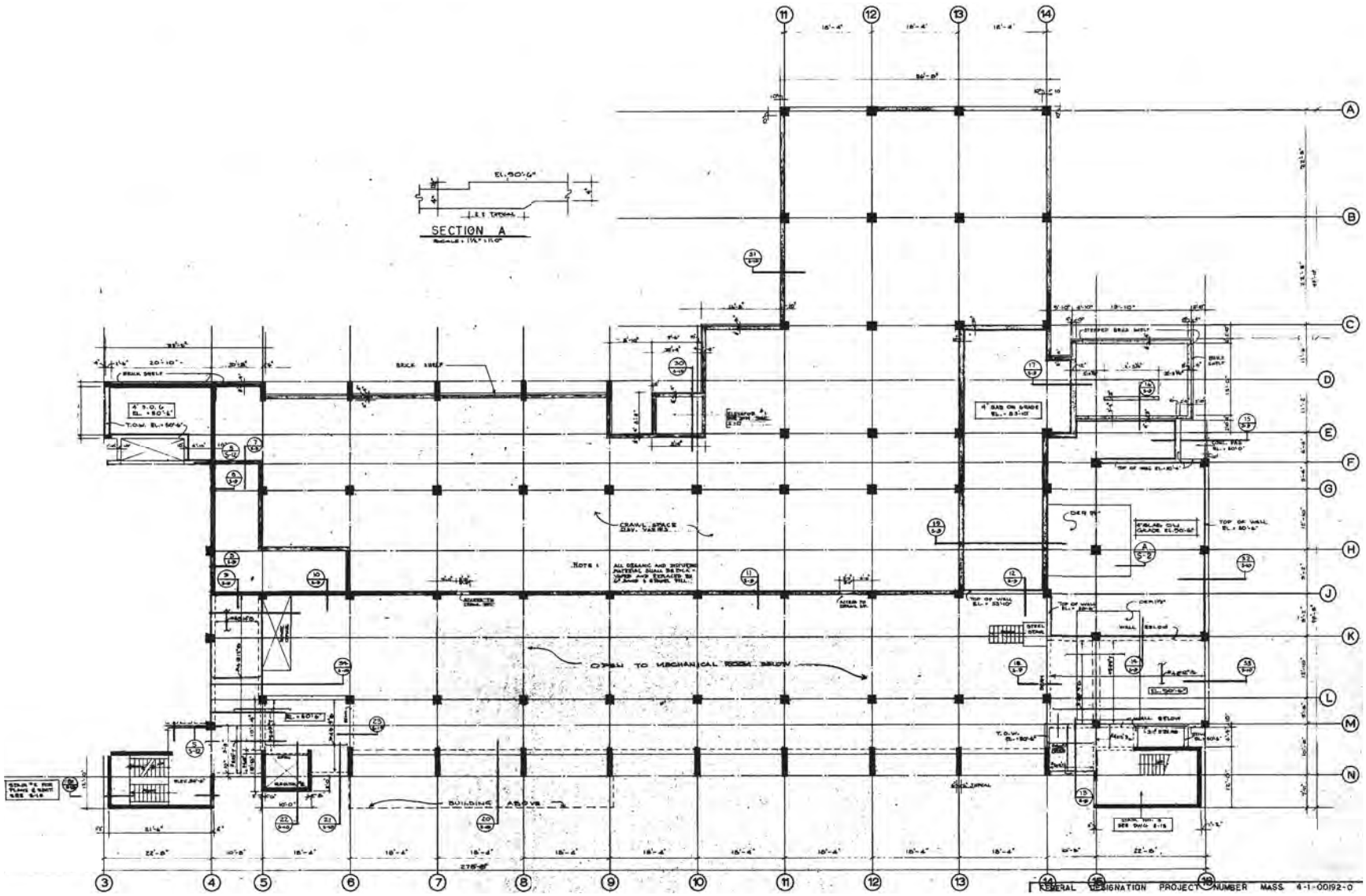
Proj.	Drawn:	Checked:	Date:
120034.00	ES	NGC	04/27/12

Drawing No.:

P-1

Scale:

N.T.S.



SIMPSON GUMPERTZ & HEGER

Engineering of Structures and Building Enclosures

Simpson Gumpertz & Heger Inc.
41 Seyon Street, Building 1, Suite 500
Waltham, Massachusetts 02453

781.907.9000
fax 781.907.9009
www.sgh.com

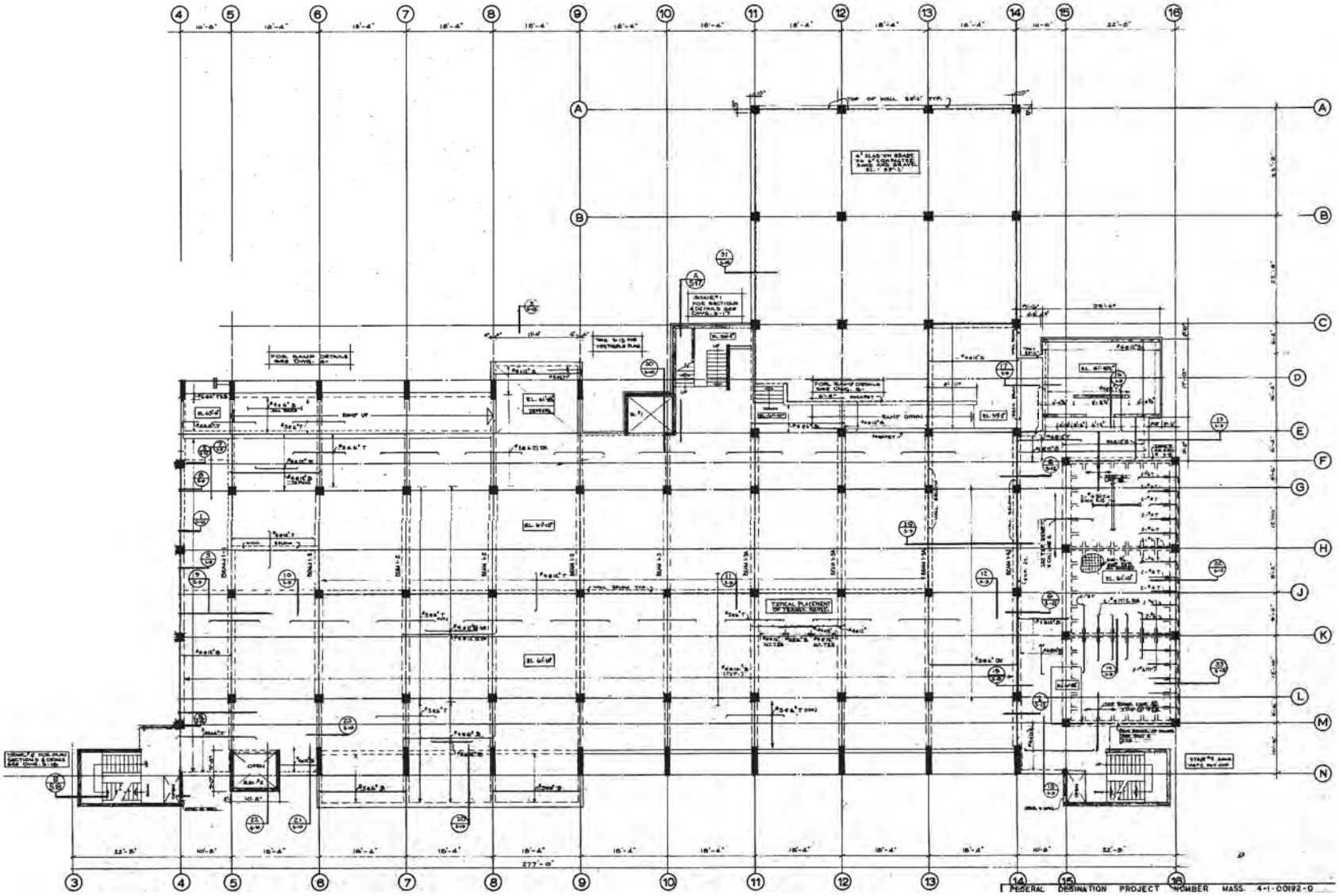
Project: Phase 2 Demolition
Salem State University Library
360 Lafayette St. – Salem, MA

Title: LOWER LEVEL FLOOR PLAN

Proj.	Drawn:	Checked:	Date:
120034.00	ES	NGC	04/27/12

Drawing No.: P-2

Scale: N.T.S.



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Phase 2 Demolition
Salem State University Library
360 Lafayette St. – Salem, MA

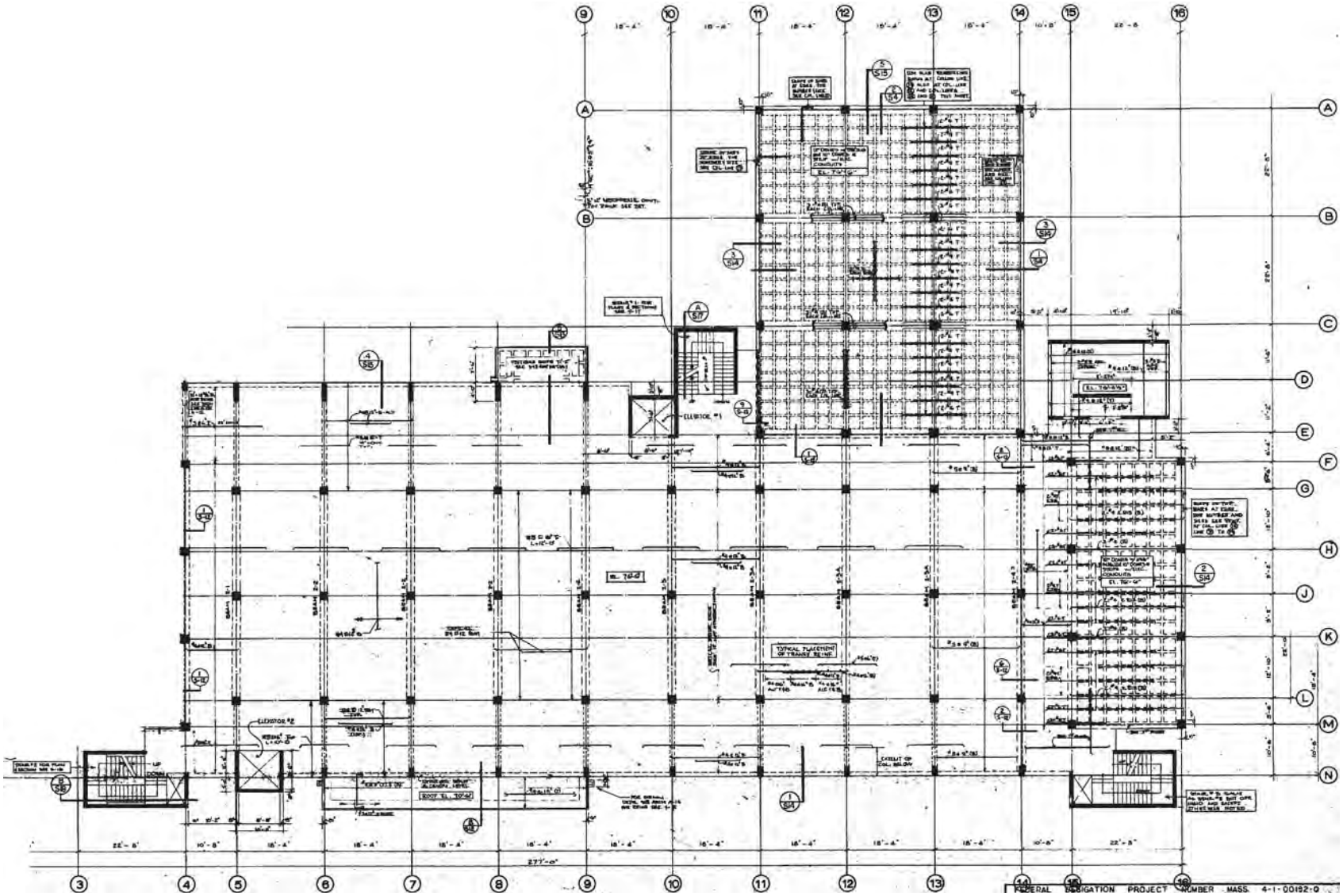
Project:

Title: FIRST FLOOR PLAN

Proj.	Drawn:	Checked:	Date:
120034.00	ES	NGC	04/27/12

Drawing No.: P-3

Scale: N.T.S.



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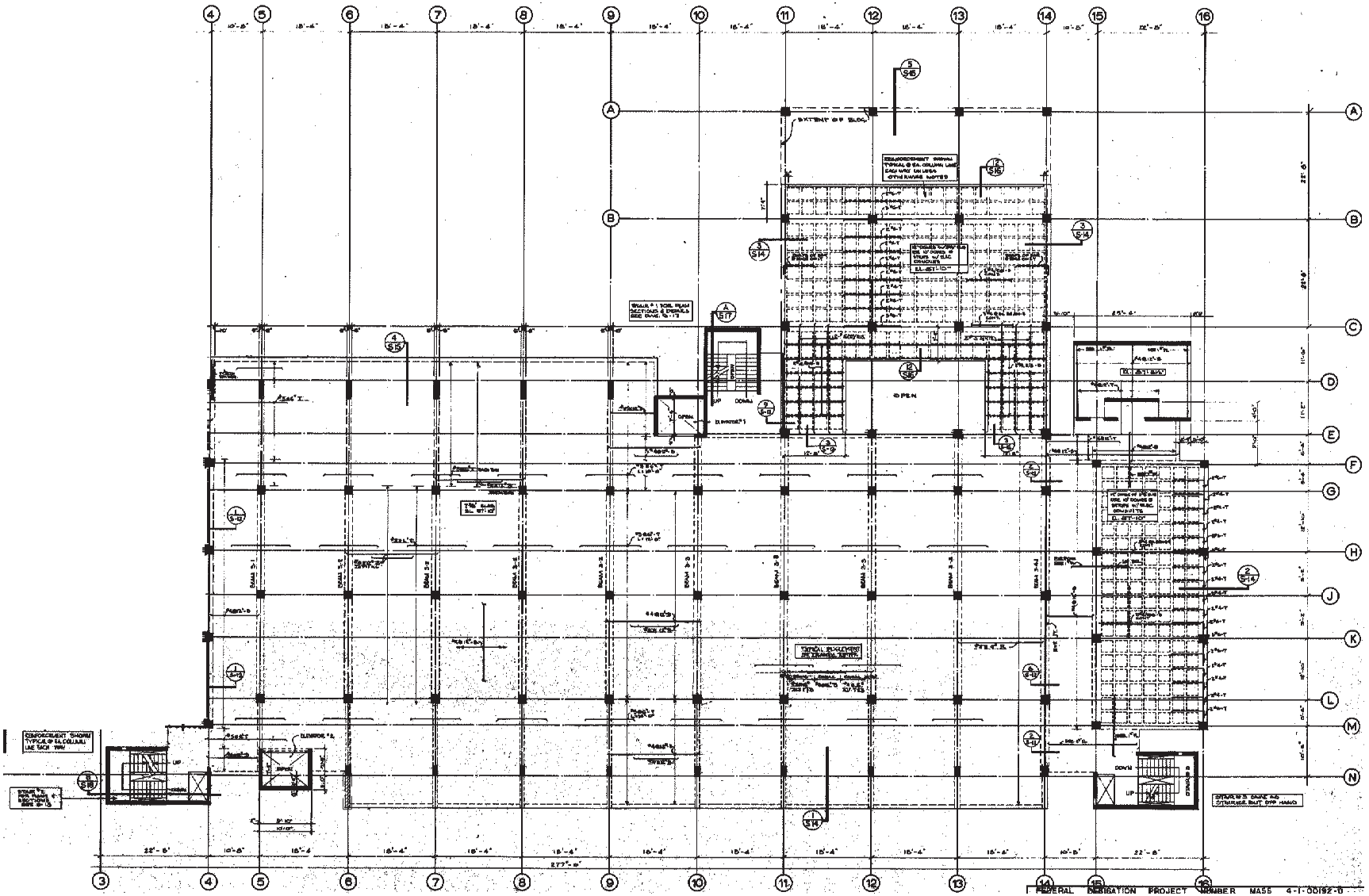
Project: Phase 2 Demolition
Salem State University Library
360 Lafayette St. – Salem, MA

Title: SECOND FLOOR PLAN

Proj.	Drawn:	Checked:	Date:
120034.00	ES	NGC	04/27/12

Drawing No.: P-4

Scale: N.T.S.



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Phase 2 Demolition
Salem State University Library
360 Lafayette St. – Salem, MA

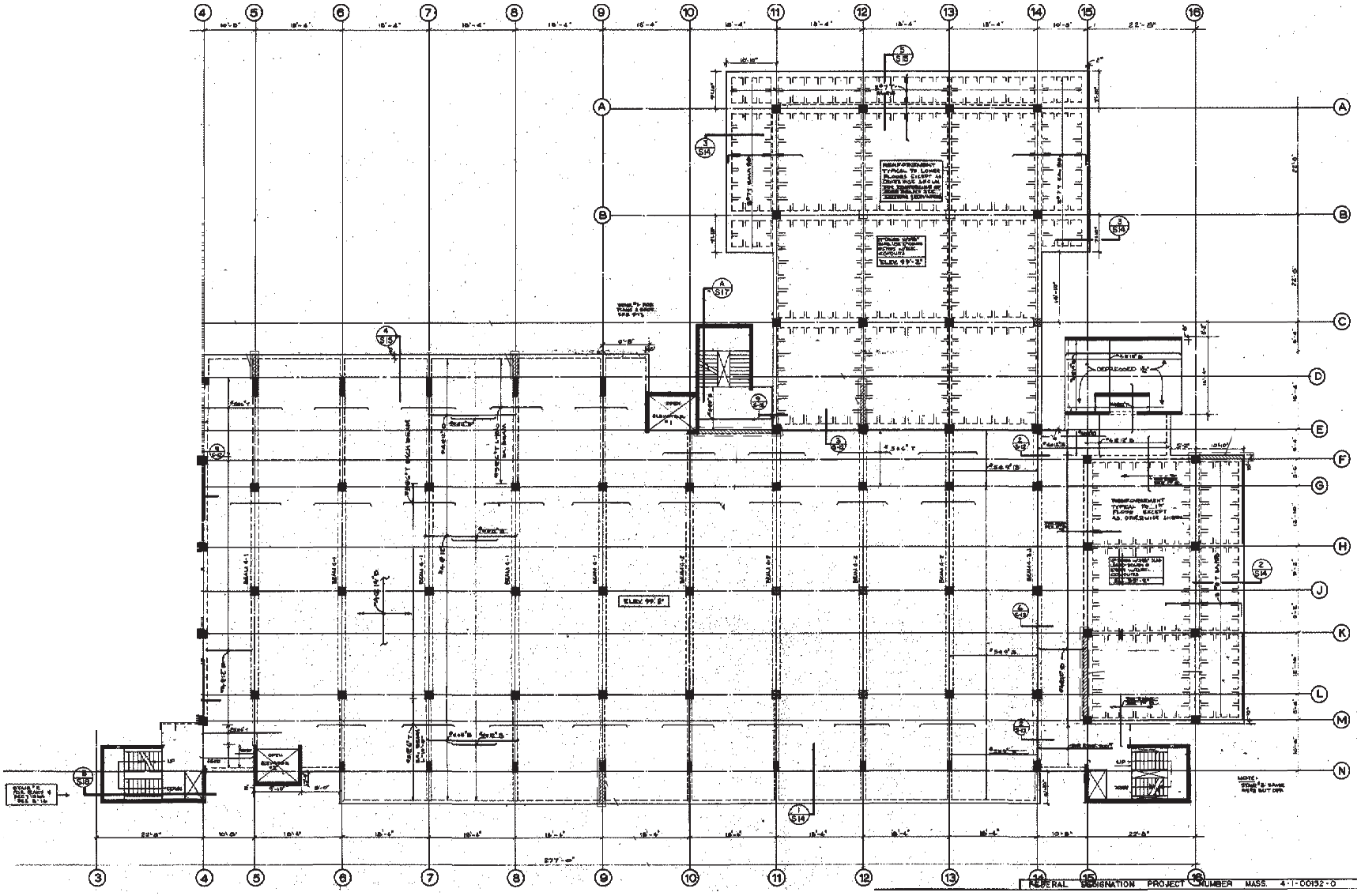
Project:

Title: THIRD FLOOR PLAN

Proj.	Drawn:	Checked:	Date:
120034.00	ES	NGC	07/05/12

Drawing No.: P-5

Scale: N.T.S.



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Phase 2 Demolition
Salem State University Library
360 Lafayette St. – Salem, MA

Project:

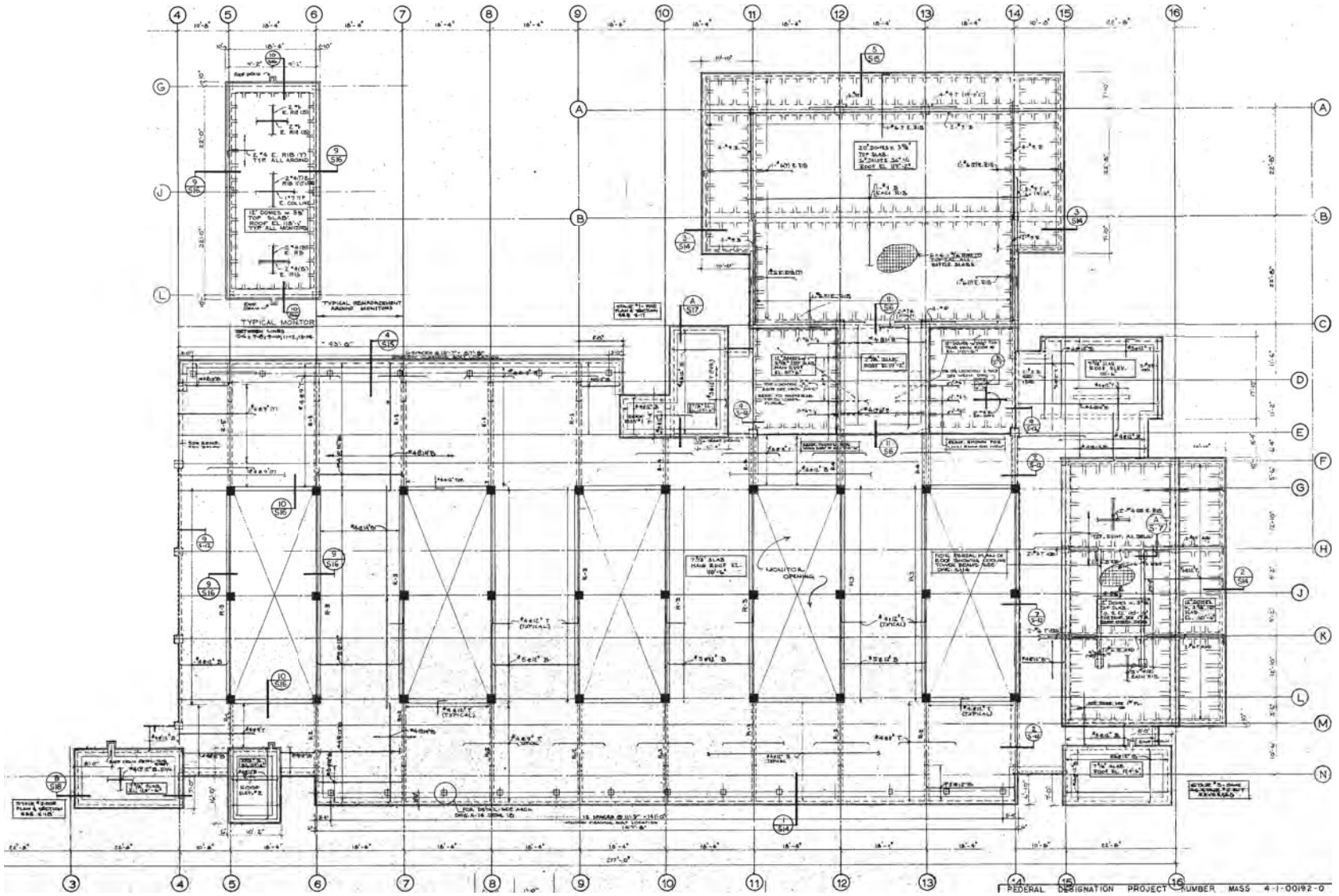
Title: FOURTH FLOOR PLAN

Proj.	Drawn:	Checked:	Date:
120034.00	ES	NGC	07/05/12

Drawing No.:

P-6

Scale: N.T.S.



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Phase 2 Demolition
Salem State University Library
360 Lafayette St. – Salem, MA

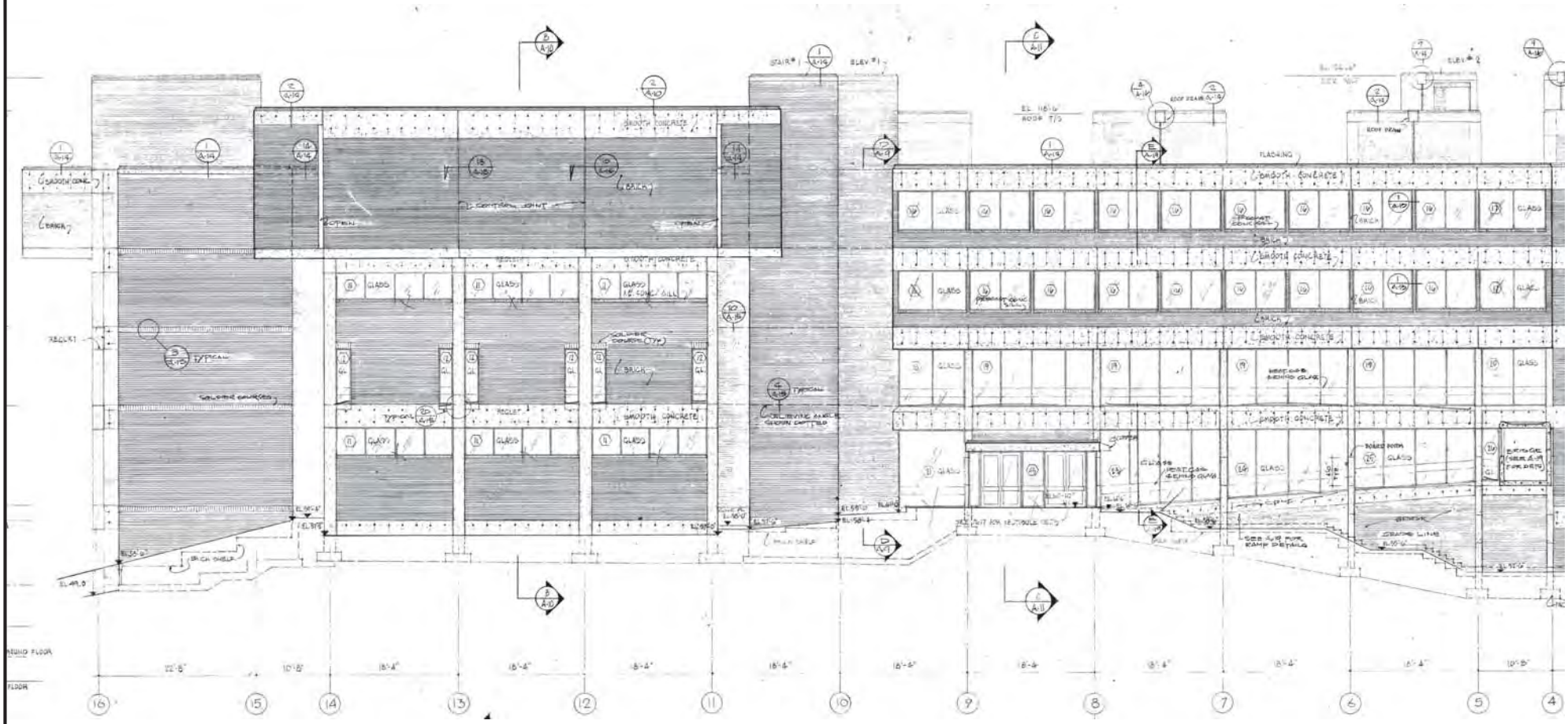
Project:

Title: ROOF PLAN

Proj.	Drawn:	Checked:	Date:
120034.00	ES	NGC	04/27/12

Drawing No.: **P-7**

Scale: N.T.S.



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Phase 2 Demolition
Salem State University Library
360 Lafayette St. – Salem, MA

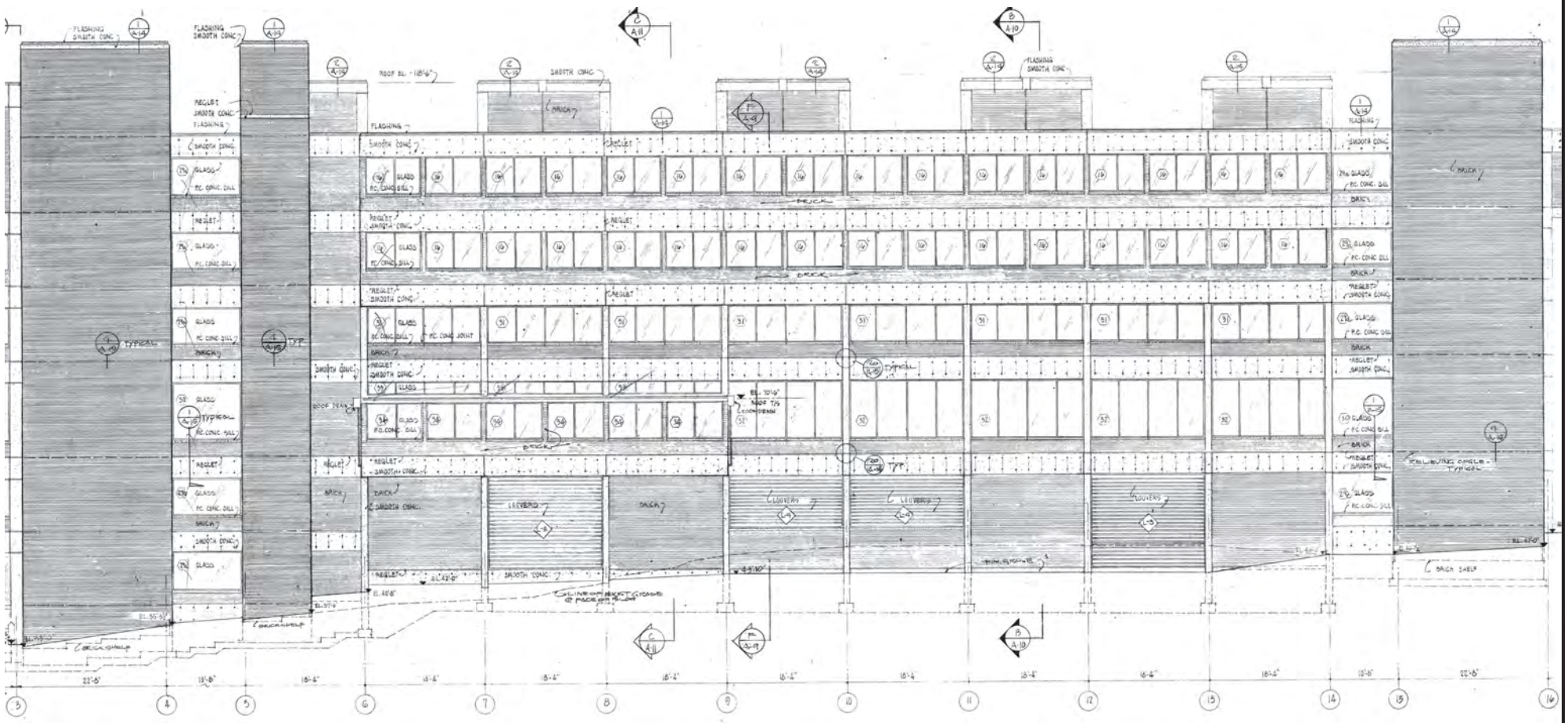
Project:

Title: NORTH ELEVATION

Proj.	Drawn:	Checked:	Date:
120034.00	ES	NGC	04/27/12

Drawing No.: P-8

Scale: N.T.S.



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fax 781.907.9009
www.sgh.com

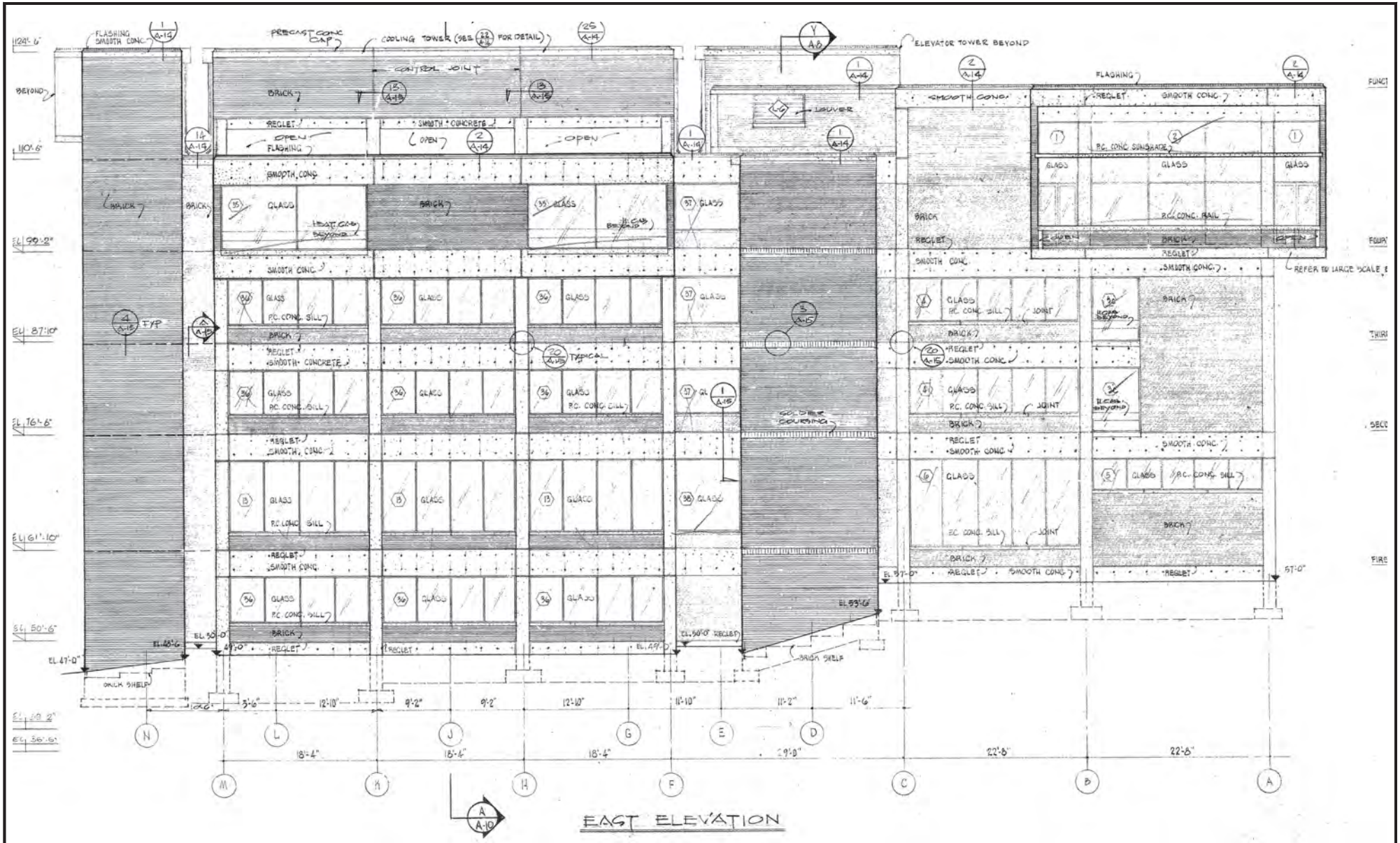
Project: Phase 2 Demolition
Salem State University Library
360 Lafayette St. – Salem, MA

Title: SOUTH ELEVATION

Proj.	Drawn:	Checked:	Date:
120034.00	ES	NGC	04/27/12

Drawing No.: P-9

Scale: N.T.S.



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Waltham, Massachusetts 02453

781.907.9000
fax 781.907.9009
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Project: Phase 2 Demolition
Salem State University Library
360 Lafayette St. – Salem, MA

Title: EAST ELEVATION

Proj.	Drawn:	Checked:	Date:
120034.00	ES	NGC	04/27/12

Drawing No.: P-10

Scale: N.T.S.

APPENDIX B:

Contractor’s Work Plan

Lee Kennedy Co Inc

Building Partnerships

Submittal Transmittal

Sean Cassidy
EFI Global, Inc.

187 Ballardvale Street, Suite A215
Wilmington, MA 01887
Phone: 978-688-3736 - Fax: 978-688-5494

Spec. Section: **024000**
Description: Building and Ancillary Structures Demolition

Date: 05/23/13

Project Name: Salem State University - Phase II Demolition
Job Number: 06149.01

Submittal	Rev.	Description	Copies	Status	Date Due
024000 - 1	2	Work Plan	1	FA	05/30/2013

We are transmitting the above listed Submittals from Package 024000 - Building and Ancillary Structures Demolition for your review and approval.

Hemant Khaneja

cc:
Chuck Calcagno - Lee Kennedy Company - Phone: - Fax: ,
Joe Berry - Lee Kennedy Company - Phone: 617-825-6930 - Fax: 617-265-0815,
Mark Swingle - Division of Capital Asset Management - Phone: 617-727-4050 - Fax: 617-727-5363,
Searle Hay - Division of Capital Asset Management - Phone: 978-542-2459 - Fax: 978-542-2462,
Robert Anderson - Division of Capital Asset Management - Phone: 617-727-4030 - Fax: 617-727-4043,
Mark Webster - Simpson Gumpertz & Heger Inc. - Phone: 781-907-9369 - Fax: 781-907-9009

PCB-IMPACTED CAULKING AND MASONRY REMEDIATION WORK PLAN – PHASE 2 DEMOLITION
360 LAFAYETTE STREET
SALEM, MASSACHUSETTS

by

Haley & Aldrich, Inc.
Boston, Massachusetts

for

JDC Demolition Company Inc.
Brockton, Massachusetts

File No. 39761-010
May 2013

HALEY & ALDRICH

Haley & Aldrich, Inc.
465 Medford St.
Suite 2200
Salem, MA 02129

Tel: 617.886.7400
Fax: 617.886.7600
HaleyAldrich.com

HALEY & ALDRICH

23 May 2013
File No. 39761-010

JDC Demolition Company, Inc
338 Howard Street
Brockton, Massachusetts

Attention: Brian Arcand

Subject: Phase 2 - PCB-Impacted Caulking and Masonry Remediation Work Plan
Salem State University
360 Lafayette Street
Salem, Massachusetts

Dear Brian:

Haley & Aldrich, Inc. (Haley & Aldrich) is pleased to submit this PCB Remediation Work Plan for the above-referenced project site. This document has been prepared pursuant to the Self-Implementation PCB Remediation Plan (the Notification) dated April 4. 2011 and EPA's PCB Cleanup and Disposal Approval dated April 13, 2011. The scope of work described herein is directed toward removal/remediation of the identified PCB impacted materials in the Phase II section of the former library in preparation for demolition and site redevelopment.

Please do not hesitate to contact us should you have any questions or require additional information.

Sincerely yours,
HALEY & ALDRICH, INC.

Kristina M. Florentino, CHMM
Staff Scientist

Marc J. Richards, PE, LSP
Senior Project Manager | Vice President

c: Absolute Environmental, Inc.

Enclosures

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TABLE OF CONTENTS

1. INTRODUCTION

This PCB Remediation Work Plan (referred to herein as "Plan") presents details of the means and methods for performing work associated with the segregation and management of polychlorinated biphenyl (PCB) containing materials located at the former Library Building (Site) of Salem State University's North Campus located at 360 Lafayette Street. The work will be conducted in accordance with the following, which are integral parts to this Plan and included by reference:

- Self-Implementation PCB Remediation Plan (the Notification) dated April 2011
- EPA's PCB Cleanup and Disposal Approval dated April 13, 2011

During the Phase 2 Demolition Project, the remaining portion of the Library structure, the foundation, and associated footings will be demolished to clear the site for future redevelopment of a new science building. Refer to Figure 1 - Site Locus Plan and Figure 2 - Building Phase Plan.

This Plan is prepared specifically to address the existing masonry and caulking located within the Phase 2 Area of the building, including, structural concrete components of the building, windows, doors, and frames impacted by PCB-containing caulking, PCB-containing parging/mastic at the relieving angles under the brick veneer, other PCB-impacted materials present within the Library, and structural concrete pieces stored within the building during the Phase 1 Demolition Project. The work covered by this Plan compliments and completes the work outlined in the Cost Removal Alternative Study Program Plan dated February 11, 2011, which was modified on April 4, 2011 and approved by EPA on April 13, 2011.

JDC Demolition Company, Inc. (JDC) and its subcontractor Absolute Environmental, Inc. (Absolute) will perform the PCB and asbestos abatement work. For the purposes of this Plan, references to JDC below will apply to both JDC and Absolute.

1.1 Project Background

The Library, as originally constructed, was a 138,000 square foot, five-story (plus a partial Ground Level "basement") cast-in-place concrete structure with the panels between the structural columns and floor slabs in-filled with concrete masonry units (CMU) and windows. A brick veneer is adhered to the Library's exterior over the CMU. In addition, CMU was used to construct some interior walls and walls around a roof-top chiller unit. The Library has been closed since 2007 due to structural integrity concerns.

Demolition of the library is underway to make way for construction of a new science building. The Library is being demolished in two phases (Phase 1 and Phase 2). Phase 1 is complete and involved the complete demolition of the western portion of the Library, comprising a total gross square footage of approximately 25,000 square feet. During Phase 1, PCB-impacted concrete columns and spandrel beams were dismantled in approximately 6 to 8-foot lengths and temporarily stored within the Phase 2 Area of the building for disposal during Phase 2.

1.2 Limitations

This Work Plan was prepared by Haley & Aldrich, Inc. (Haley & Aldrich) in accordance with our Agreement with JDC dated 7 March 2013 and executed 11 March 2013 (hereinafter referred to as Agreement). This Work Plan was prepared in accordance with our Agreement for the exclusive use of

JDC in connection with the subject 360 Lafayette Street project. There are no intended beneficiaries other than JDC and DCAMM.

Specified construction means and methods specified herein are as proposed by JDC and therefore proposed subcontractors. This Plan summarizes JDC's proposed means and methods of construction, including proposed equipment to be used as communicated by JDC to Haley & Aldrich. Inclusion of construction means and methods in the work plan does not constitute a review or approval of JDC's proposed approach. In addition, based on the documented structural deficiencies in the building, Haley & Aldrich scope does not include services related to evaluating a proposed JDC approach with respect to any allowable load limits, safety, and any other structural conditions in the building.

Haley & Aldrich will owe no duty whatsoever to any other person or entity on account of the Agreement. Use of this Work Plan by any person or entity other than JDC or DCAMM for any purpose whatsoever without the express written authorization of JDC and Haley & Aldrich will be at such other person's or entity's sole risk, and will be without legal exposure or liability to JDC, or Haley & Aldrich.

2. REGULATIONS, PERMITS, AND QUALIFICATION

JDC will obtain permits necessary to execute work conducted at the Site. JDC will adhere to all applicable federal, state, and local rules and regulations including, but not limited to, those from the Environmental Protection Agency (EPA), the Massachusetts Department of Environmental Protection (MassDEP), the U.S. Occupational Safety and Health Administration (OSHA), and the Salem Fire Department.

JDC will also conform to stipulations and permits identified in the contract bid documents, including any conditions set forth in the EPA approval. Where a conflict arises between regulations, JDC will adhere to the most stringent regulation. JDC will also confer with Division of Capital Asset Management and Maintenance (DCAMM), and EFI Global, Inc. to resolve any conflict between the project plans and the proposed remediation procedures.

2.1 Fire Safety and Emergency Action Plans

JDC has prepared an emergency action and fire prevention plans that are compliant with applicable regulations. This plan includes:

- emergency escape procedures and routes
- the procedure for announcing emergencies
- the procedures to account for all employees after evacuation
- the rescue and medical duties of personnel
- a list of all major workplace fire hazards
- the names and/or job titles of people responsible for the maintenance of the fire prevention equipment
- the names and/or job titles of people to be contacted for information about the job

This emergency action and fire prevention plan is available under separate cover.

2.2 Training and Certification

All personnel performing abatement activities at the Library Building will have the required proof of training on site, including Hazardous Waste Operations and Emergency Response (HAZWOPER) certification, proof of medical examinations, and respirator fit testing, as specified by OSHA. JDC personnel and associated subcontractors involved in the removal of asbestos containing materials will also have Massachusetts Department of Labor Standards (MassDLS) Asbestos Worker and/or Supervisor certification.

JDC will have a competent supervisor/foreman at the job site at all times overseeing the work. Site-specific hazards and hazards associated with the handling and disposal of PCB products will be effectively communicated to the staff to minimize potential exposures. In addition, JDC will provide proper training and equipment for all safety-related issues.

3. PCB ABATEMENT AND STRUCTURE DEMOLITION

3.1 Scope

The Scope of Work for this Plan is to demolish the remaining portion of the Library, the Phase 2 Area. The work included in this Plan solely addresses specified PCB-impacted caulking and existing masonry within the Phase 2 Area of the building, structural concrete sections stored within the building during the Phase 1 Demolition Project, structural concrete components of the remaining Phase 2 Area of the building, windows, doors, and frames impacted by PCB-containing caulking, PCB containing parging/mastic at the relieving angles under the brick veneer, as well as, other PCB-impacted materials present within the Library. The duration of the Phase 2 Demolition Project is anticipated to be approximately 6 months.

3.2 General Work Sequence and Specific Work Plan Procedures

The work sequence consists of the following steps in the general order provided below:

1) Erection of scaffolding around the entire exterior area of the building. Monarflex reinforced polyester yarn sheeting will surround all scaffolding. This sheeting will greatly improve the ability to contain dust and debris within the scaffolding/work area. A copy of the Commercial Product Data Sheet for Monarflex is included in Appendix B.

2) Install erosion control on the site.

3) Obtain DCAMM, EFI Global and EPA approval of PCB remediation work plan.

4) Isolation and protection of PCB removal work areas, and construction of personal decontamination facilities, as required. Work areas will generally be demarcated by barrier tape with attached PCB Hazard signage and 10 mil reinforced polyethylene drop cloths that extend 10 feet from the work area in all directions. The ground base of the perimeter scaffolding will also be covered in poly sheeting.

5) Decontamination facilities will be constructed using three (3) prefabricated pop-up chambers sealed with duct tape and affixed with PCB signage. A High-Efficiency Particulate Air (HEPA) vacuum will be placed in the center chamber, which workers will use to decontaminate themselves. Workers will remove disposable PPE in the airlock designated as the dirty room, decontaminate in the central airlock, and exit through the clean airlock. Decontamination facilities will be located on each floor, on which, work will be performed, contiguous to the regulated work areas.

6) Workers will don protective suits prior to entering the work area(s) and the suits will be removed in the decontamination chamber upon exiting the work area(s).

7) The PCB work area signage will include the following language, and will be posted at all approaches to the work areas:

CAUTION
PCB WORK AREA
HUMAN AND ENVIRONMENTAL TOXIN
AUTHORIZED PERSONNEL ONLY
NO SMOKING OR EATING

8) Panel demolition will occur as outlined in Section 3.5.

9) The demolition work will be performed using a Volvo 700 High Reach excavator. Access to the ground level and areas around the building will be blocked off by barrier tape/fencing. A JDC spotter will be positioned nearby to prevent public access and observe the demolition procedures and progress.

10) Wetting agents will be applied to the panels and caulking area prior to and during demolition in sufficient quantity to reduce dust generated, but not in excess such that a liquid waste stream is generated. The wetting agent will consist of 50% polyoxyethylene and 50% polyoxyethylene ether, or equivalent, per one ounce per 5 gallons of water) to minimize dust generated by the removal activities.

11) HEPA vacuums will be used to collect any residual dust, debris or particles in the work areas.

12) To the extent practical, hand tools and HEPA equipped power tools will be utilized.

13) Dust control will consist of the engineering controls described in JDC's Dust & Noise Control Plan included in Appendix E and briefly described below. Visible dust during hammering of concrete will be initially suppressed the dust suppression system affixed to the boom of the high reach excavator for immediate, localized dust control along with controlled use of fire hose by a person positioned adjacent to the work area on a Boom-Lift. The fire hose will emit a fine mist of water so that a liquid waste stream is not generated.

14) Install OSHA compliant guard rails along applicable areas, and fall protection across any openings in the building created by the selective demolition noted below.

15) JDC will observe the 6 foot fall rule; provide harnesses and personal fall arrest systems for its personnel where required, and use appropriate tie-off points such as structural beams or eyelets in equipment such as boom lifts.

16) Install shoring per JDC shoring plan and any other applicable areas, as required.

3.3 Stored PCB Bulk Product Waste

JDC will remove and dispose of structural concrete columns and beams and contaminated sections of floor and ceiling deck concrete slabs associated with the Phase 1 Area of the building that are currently stored in the Phase 2 area of the building. JDC will dispose of the Phase 1 concrete sections as PCB Bulk Product Waste in accordance with the performance-based disposal requirements of 40 CFR 761.

JDC will size stored concrete section only as necessary for acceptance at the disposal facility. Prior to removal, these stored concrete sections, as well as metal ties and rebar, will be marked with a bright marking paint. Wood dunnage will also be removed and disposed as a PCB Bulk Product Waste.

3.4 Window and Door Frame Demolition

Door and window frames with PCB and asbestos-containing caulking will be removed, packaged, and properly disposed as PCB Bulk Product. Door frames will be removed using hand tools and immediately packaged for off-site disposal.

Window pane and frame removal will consist of mechanical disassembly of the exterior window frame braces, followed by removal of the glass panels using a combination of the following methods:

1) Removing the window pane by dismantling the frame and removing the pane with suction cups, then pulling the frames out utilizing cable and winches to loosen the frame from the building. Window panes and frames will be immediately packages for off-site disposal.

2) Window panes will be covered with spray glue and polyethylene sheeting to collect glass. Window panes will be broken up and collected and placed into rice bags, then into (2) 6-mil asbestos bags sealed and labeled as ACM. Following the removal of the window glass panels, the window frames will be pulled into the building using a bobcat.

The above methods will be performed with 1 layer of 10-mil reinforced polyethylene sheeting on the interior and exterior floor or scaffold section where the window is being removed. Once inside the temporary decontamination and waste storage areas, the window glass and window frames will be wrapped in (2) layers of 6-mill polyethylene sheeting, packaged and labeled as an Asbestos Waste and PCB Bulk Product Waste.

Visual inspection of remediation work areas will be performed by JDC and DCAMM's Environmental Consultant (EFI).

3.5 In-Fill Panel Demolition

The method for in-fill panel demolition is proposed to include an alternative approach as follows:

1) For Phase II, all in-fill brick/CMU panels will be disposed of as PCB Bulk Product Waste with no segregation of portions of the in-fill panel that have been characterized as Excluded PCB Wastes in DCAMM's Notification dated April 4, 2011.

2) Demolition of selected panels will be conducted in a systematic fashion, working from the 4th floor down to the 1st, and in a fashion that the debris will be consolidated to inside the building, on 10-mil poly drop cloths. JDC equipment (bobcat, Brokk, etc.) and debris piles will be positioned so as not to overload the floors. Floor loading evaluations have been performed by JDC's structural engineer and are available upon request.

3) Panel demolition will generally involve the removal of the top course or two of CMU block using hand and power tools and then pulling the remaining block wall into the building, using a bobcat and/or a Brokk with pole attachments. The block wall will drop onto 10-mil poly drop cloths installed on top of tires covered with plywood (the tires and plywood are utilized for shock

absorption) and/or plywood with rigid insulation beneath the plywood during the panel demolition as necessary.

4) Panel demolition debris will not be segregated to separate PCB Bulk Product waste form Excluded PCB Products. All panel CMU debris will be disposed as Bulk Product Waste. Debris piles will be loaded into a lined scale pan/dump hopper and will be hoisted out of the building via telescoping forklift and/or crane and placed into a double 10-mil lined dump trailer. After a trailer is full, liners will be properly sealed and labeled. The trailer will then be transported by a licensed waste hauler to an approved landfill. The waste disposal characterization may include sampling for TCLP lead and TCLP PCBs, which is also dependent on the receiving facility waste profiling requirements.

5) The Monarflex sheeting and planking on the staging, and the 10-mil poly drop cloths on the ground under the areas of panel demolition will help contain CMU debris to within the regulated work area during panel demolition. Each level of the staging will be protected with 10-mil poly drop cloths secured to the building.

6) JDC will monitor weather conditions during the loading and storage of the trailers, and use tarps to minimize rain/snow from entering the containers during loading and storage activities. All containers will be labeled prior to the start of loading PCB waste activities and all containers will be covered at the end of each work shift.

3.6 Asbestos Containing Mastic/Parging Material located at Relieving Angles

A steel relieving angle is located behind each PCB exterior brick caulking joint associated with the stairway and elevator shafts. The horizontal relieving angles have an asbestos/PCB containing mastic/parging material used to adhere copper flashing to the interior concrete shear walls. Following removal of the exterior brick (summarized in Section 3.8), JDC will remove and dispose of asbestos-containing black mastic/parging material and associated metal flashing material located at the relieving angles and concrete shear walls. The flashing and steel relieving angles will not be decontaminated and will be disposed as PCB Bulk Product Waste and ACM. Metal relieving angles will be sized according to the disposal facility's requirements. Any identified gasketing, backer rod, insulation, and other porous materials within 12-inches of the black/mastic parging material will also be disposed as PCB Bulk Product Waste. Following mastic removal, all exterior concrete within 12 inches of the removed mastic materials will be painted with a bright-colored marking paint.

Demolition of the concrete shear walls will progress from the top down. Clean concrete will be managed to the interior of the stairway/elevator shaft. When concrete shear wall demolition approaches the painted areas, the painted concrete and will be contained to the scaffolding and subsequently loaded into containers for lowering to the ground. All reinforcing bars located with the painted concrete areas will also be disposed as PCB Bulk Product Waste. Care shall be exercised so as not to co-mingle PCB bulk product waste with concrete that is not PCB-impacted or "clean". The immediate work area shall be thoroughly cleaned after removal of PCB bulk product waste prior to removal of "clean" concrete.

3.7 Other Interior PCB Bulk Product Waste

JDC will remove other inventoried PCB Bulk Product Waste prior to demolition. Other wastes include all interior materials in contact with PCB-Bulk Product Waste caulking, including but not limited to, window and door frames (summarized above), louvers, metal studs/framing, wood/plywood, support

frames, wiring, filler material, conduit, structural steel, roof flashing, base flashing, foam backer rod, rubber gasketing/backer rods, metal channel with fiberglass insulation, fasteners, ties, rebar, plaster, lathe, plaster framework, piping, ductwork, insulation, and fireproofing. Spray-on fireproofing, plaster, gypsum wallboard, and associated lathe within 12-inches of caulk joints or former caulk joints will be removed as PCB Bulk Product Waste. Removal of plaster and lathe, structural steel, reinforcing steel, and brackets will occur to a distance of 12-inches from caulking. No metal decontamination will be performed.

JDC will remove identified sheetrock walls and metal studs at the door frame located at Column G/11 associated with the DCAMM field office. The door frame, metal studs, and sheetrock within 12-inches of Column G/11 will be disposed as PCB Bulk Product Waste. Remnant PCB caulking that may be present underneath the metal studs and plywood associated with the temporary closure wall along Line 4 will be abated (as shown on the contract drawings). Metal studs/framing and plywood in contact with and within a distance of 12-inches of the caulking will be removed and disposed as a PCB Bulk Product Waste.

DCAMM and/or EFI shall visually verify the completion of all interior abatement work prior to structure demolition commencing.

3.8 Exterior Brick on Stairways and Elevator Shaft

JDC will paint brick areas with high visibility paint that are located within 6 inches from caulking seams in each direction at all exterior brick surfaces from the stairwells, elevator shafts, and the shear wall located at the bathrooms located within the northeastern portion of the building.

The engineering controls described earlier in this document (barrier tape and signage, poly drop cloths, decontamination facilities, etc.) will be utilized for this work also during the removal of the painted PCB Bulk Product Waste brick.

All other exterior brick associated with the stairways, shear wall at bathrooms on the northeastern portion of the building, and elevator shafts that is not painted (not PCB impacted) will be disposed/recycled at an approved facility. This brick will be bulk loaded into open top trailers during structure demolition.

Working from the top down, JDC will selectively demolish the exterior brick areas of the stairways and elevator shafts and stop at each identified painted brick areas. The identified painted brick will then be removed, contained on the scaffolding, and subsequently loaded into containers to be lowered to the ground. Exterior clean brick demolition will then continue down to the next identified painted brick section.

Following removal of the exterior brick, the reinforced concrete shear walls in the stairwells and elevators shafts will be selectively demolished as described below in Section 3.9.

3.9 Structure Demolition

3.9.1 General

Demolition will include three phases, with structurally compromised areas demolished first. As indicated on Figure 2 Site Plan, demolition will begin along Lafayette Street on the eastern portion of the library, referred to as Demo Area A, and includes the cantilevered building

section that is currently reinforced with temporary shoring. Demo Area B, the second cantilevered building section on the northern portion of the library, will be demolished to the limits shown on Figure 2. Demo Area C will progress next which includes the remainder of the library. Demolition in Area C will proceed from the west to east.

Roofing materials will be removed using hand demolition methods and qualified equipment. The roofing materials will be lowered to the ground through use of a crane and scale pan (or via former elevator shafts) and disposed of as construction debris. Roof demolition work will be conducted in accordance with OSHA fall protection requirements; existing parapet walls, beams on the roof (for tie off points), and flagging will be used to keep workers safe throughout removal of rubber/foam roofing.

3.9.2 Cantilevered Building Sections

During the demolition of the 4th floor cantilevered ceiling and floor slabs located in Areas A and B (see Figure 2), the material will be stockpiled on-site. Once the demolition of the 4th floor ceiling and slab is completed, the shoring for the cantilever building sections will no longer be loaded/required for structural support, therefore sections of the shoring and adjacent scaffolding can be removed. The gap created by the removal of shoring and scaffolding will be planked so that the shoring and scaffolding can be used to help contain and control the demolition debris. JDC reserves the right to modify non-PCB impacted concrete building egress routes and stock pile locations as needed within identified staging areas, at the discretion of the field supervisor and project/demolition manager.

Following structure demolition of Areas A and B, additional Monarflex wrap will be installed at the demolition limits of these two areas onto the primary structure along column lines 14 and E to further control dust migration. As structure demolition continues from top down, perimeter building scaffolding will be progressively lowered, along with the scaffolding Monarflex wrap, at the discretion of the JDC project team and demolition supervisor.

3.9.3 Structural Concrete in Contact with PCB Caulking

Structural concrete sections to be removed that are in contact with PCB caulking will be painted with high visibility paint prior to demolition to improve the identification and segregation during building demolition. All painted areas shall be approved by DCAMM and/or EFI prior to demolition.

JDC will remove and dispose identified concrete spandrel beams, columns, and floor/ceiling slabs in contact with PCB-containing caulking as PCB Bulk Product Waste. Portions of concrete slabs which intersect horizontal or vertical caulk seams will be removed within 12-inches of the caulk joint (laterally and at a depth) and disposed as PCB Bulk Product Waste. Concrete pieces will be removed in sections that are as large as possible to comply with the disposal facility requirements.

Selective demolition of PCB impacted concrete and non-PCB impacted concrete will be sequenced such that the materials will not be intermingled or disturbed at the same time. Equipment that has been in contact with PCB containing material will be decontaminated as discussed in Section 8.

Due to structural concerns, JDC needs the flexibility to transition between the removal of PCB impacted material and non-PCB impacted material at a given level and location. Segregation of

waste streams is paramount; therefore, the first material removed in either sequence will be completely removed from the area and the area cleaned/decontaminated prior to removing the second material in the sequence.

Additional methods are as follows:

1) Completely expose the reinforcement bars (rebar) of spandrel beams where they connect to the adjoining columns using a hoe ram/hydraulic hammer or similar device. Note that the hoe ram/hydraulic hammer and any other non porous items that come in contact with painted concrete will be decontaminated prior to use on waffle slabs and interior concrete columns in subsequent areas.

2) Cut rebar with a cutting torch or chop saw, as necessary. The spandrels will be cut adjacent to the columns, and they will be supported by a sling and crane during this work.

3) Rebar at the base of a column will be exposed using a hoe ram/hydraulic hammer. The column will be supported with a crane and sling, and the rebar will be cut with a welding torch or chop saw.

4) Remove all debris from the work area prior to work being performed on the concrete waffle slabs (ceiling and floors) and the interior columns. Decontaminate equipment and collect and package all PCB-impacted concrete debris.

5) All non-PCB impacted concrete beams and waffle slabs will be selectively demolished one bay and beam at a time. A "bay" consists of the rectangular area within four (4) columns. The spandrel beams will be supported by crane with chokers and slings during slab demolition and progressively lowered to the ground. The concrete demolition needed to expose/release the beams will be performed using a Brokk situated on the floor and/or a high reach excavator (Volvo 700) with a hydraulic hammer and/or MP15 concrete shear attachment.

6) Bay-by-bay demolition will start from the west and work towards the east, and start from the roof level and working down to the ground level. This material will be further sized to meet receiving facility requirements.

7) Where required for beam/column demolition, PCB impacted concrete (i.e. concrete within 12-inches of a caulk joint, laterally and at a depth) will be selectively demolished and the concrete will be collected and channeled into interior sections of the building through the use of some or all of the following methods, at the discretion of JDC: planking and wood chutes installed on the scaffolding, a wood chute supported by lull or crane outside of the building; and/or a curved sheet of metal (similar to a section of a tank, supported by crane underneath the location of hammering angled into the building).

8) Removal of PCB impacted spandrel beams and exterior columns will occur first and proceeding with the demolition of the non-PCB impacted concrete (e.g. waffle slabs, interior columns, etc.).

9) Demolition of elevator shaft #1 doors will be performed to provide access to the elevator shaft on all floors. The shaft will be used as a non-PCB impacted demolition debris chute.

Temporary shaft walls will be constructed with plywood and studs to replace the elevator doors that were removed. Only non-PCB impacted material will be moved down the shaft, a mister will be installed at the top/active floor of the shaft for dust control, and a hose will be positioned at the bottom level of the shaft to mist the debris and perform dust control.

10) Non-PCB impacted debris will be moved from the bottom of the shaft on the ground floor of the building out the south end of the building by bob cat, where it will be temporarily stockpiled and/or loaded for removal off-site.

11) When demolition of PCB-impacted concrete is being performed, the engineering controls described herein will be utilized. This includes covering the area within the building on the floors where the concrete debris will be channeled onto with a 10-mil reinforced polyethylene drop-cloth and wood boxing to contain debris, demarcating the area with PCB signage and barrier tape, and placing the painted concrete into open top dump trailers and/or open top roll off containers to be disposed of as PCB Bulk Product waste.

12) As demolition advances vertically, scaffolding will be progressively removed down to the next floor level.

13) The foundation of the building will be removed and disposed of as Asbestos Containing Material (ACM) due to the presence of asbestos mastic, in accordance with Federal, State, and Local regulations.

14) Concrete floor sections not identified as PCB Bulk product waste will be segregated and disposed off-site as construction/demolition debris and/or reused and recycled. If required by the selected receiving site, JDC will collect waste characterization samples in accordance with the facility's requirements, prior to removal from the site

3.10 Schedule

The PCB removal work is anticipated to take place during daytime hours (7AM to 5 PM) beginning once the Plan is approved, and it is anticipated that the PCB abatement and structure demolition work will take a total of approximately 6 months to complete starting in May 2013 and completing in late fall 2013.

4. UTILITIES

JDC will tie into existing and temporary (generators) electrical power on-site for the remediation work. Temporary water will be provided from on-site sources. JDC will distribute all needed water for abatement and cleaning activities.

4.1 Water Systems

All water systems running through the work area not being used must be shut off at the source. For any system that must be left on, the location of a shut-off valve must be clearly marked on the emergency plan. Back flow preventers will be installed on fire hydrants and other water sources, where applicable. Water systems used by the contractor should be consistent with DCAMM's requirements for the work activity.

4.2 Electrical Systems

Electrical systems that may pose a hazard during the abatement process will be locked out and tagged out by JDC. The power must be locked out at the control panel, and those individuals that have the ability to re-energize the area, and the individuals working in the affected area will have keys to the locks, in accordance with OSHA lock out/tag out protocols. Ground-fault circuit interrupters must be used for all temporary power supplies and extension cords.

4.3 Exiting Facilities

JDC will coordinate with Lee Kennedy and DCAMM with regard to maintaining existing facilities for the planned work activities.

5. SITE PREPARATION

5.1 Site Protection

In order to contain debris and to protect existing facilities and the environment during remediation of PCB materials, JDC will create regulated areas for all remediation work. The regulated area, used in conjunction with the planned work methods will serve to control and contain dust and debris to within the immediate work area from contaminating adjacent areas.

At the end of every work shift, JDC will remove visible debris from poly ground cover. If tears or rips occur in the poly ground cover, the poly may be repaired with duct tape, or removed and replaced with a new sheet, as warranted by the extent of the damage. Any spills of PCB-containing materials or related decontamination solvents or asbestos encapsulants will be promptly cleaned up by JDC's crew using the appropriate methods, such as collection of solids by HEPA vacuum, and liquids by chemical absorbent material.

5.2 Site Isolation

During the abatement work, Lee Kennedy and JDC will address security and access concerns as part of the project. JDC will employ dust control measures (such as wetting of work area surfaces with water mixed with wetting agent) for all work.

5.3 Waste Containers

JDC will obtain and locate the approved PCB waste containers on-site, in locations acceptable to DCAMM. The PCB Bulk Product waste containers will consist of lined 55-gallon drums, lined Gaylord boxes and/or lined/covered roll-off containers. All containers will be clearly marked in accordance with state and federal regulations, to avoid confusion with ordinary waste containers.

Thirty (30) cubic yard lined roll-off containers (into which PCB Bulk Product Waste will be loaded) will be situated in the parking area, within the construction fence. The tops of the trailers will be covered with poly and/or tarps when on site but not actively being loaded, and the trailers will be labeled with PCB signage, in accordance with the specifications, Department of Transportation (DOT), and EPA regulations.

Forty-five (45) to sixty (60) cubic yard open top dump trailers will be positioned on the road on the south side of the building and live loaded with demolition debris and then transported off site. The locations of all waste trailer locations will be approved by DCAMM.

6. MATERIALS STORAGE AND HANDLING PROCEDURES

6.1 PCB Bulk Product Waste Material

PCB Bulk Product Waste will be handled in a manner that prevents the breakdown of these materials into fine dust or powders.

Removed materials will be properly secured by end of the shift. PCB Bulk Product Waste will be stored for disposal in accordance with 40 CFR 761.62. Containers - areas will be clearly marked as PCB-containing waste materials. PCB waste will not be stored on-site in excess of 90 days of generation and the date of waste generation will be clearly marked on waste storage containers.

7. DISPOSAL

JDC will dispose of all waste in accordance with applicable state and federal regulations and transported to licensed facilities that will receive and retain PCB Bulk Product Waste and PCB Remediation Waste, in accordance with EPA regulations under 40 CFR 761.62 and 40 CFR 761.61, respectively. The primary landfills submitted for the TSCA waste on this project are the following:

1) Minerva Enterprises Landfill, Waynesburg, OH – PCB Bulk Product Waste, including combined PCB Bulk Product Waste/asbestos waste. Remediation waste cannot be managed at this landfill.

2) Turnkey Landfill, Rochester, NH – PCB Bulk Product Waste, including combined PCB Bulk Product Waste/asbestos waste (if generated PCB concentrations of the characterized waste stream is less than 50 ppm) and/or PCB Remediation Waste less than 50 ppm may be transported to this landfill. Remediation waste may be related to PPE, decontamination materials and/or containment materials.

3) EQ Landfill, Belleville, MI – to the extent any PCB Remediation Waste with concentrations greater than 50 ppm is generated, this landfill will be utilized.

All PCB waste removed from the site will remain separate from other ordinary construction waste streams that JDC may generate. Copies of all bills of lading, waste shipment records, certificates of disposal, and any other documentation will be provided to DCAMM.

8. DECONTAMINATION PROCEDURES

8.1 Personnel Decontamination

JDC employees performing the PCB-impacted caulking and masonry removal, sorting, and disposal work will use three stage decontamination facilities located at the entrance to the regulated work areas to remove contaminated PPE and to decontaminate themselves using HEPA vacuum cleaners. The pathways from regulated work areas and decontamination facilities will have plastic sheeting on the floor for employee egress from the regulated work areas. Once the work is completed on a floor the poly sheeting will be collected and properly disposed of as a PCB Waste.

8.2 Tools

All tools that come into direct contact with PCB Bulk Product Waste will be decontaminated in accordance with 40 CFR761.79(c)(2) by swabbing the potentially contaminated surfaces with a PCB soluble solvent and wipes. Appendix C contains the MSDS sheet for the proposed solvent known as "Capsur".

8.3 Truck Wash and Equipment Decontamination

The project will include a truck tracking pad to help prevent debris from entering roadways. A truck wash/decontamination area will not be constructed as all trucks will be loaded in clean areas and truck traffic will not track through contaminated areas.

Demolition equipment in contact with PCB Bulk Product Waste will also be decontaminated in accordance with 40 CFR761.79(c)(2) by swabbing the potentially contaminated surfaces with a PCB soluble solvent and wipes. Prior to decontamination, any visible dust/debris on the equipment will be removed and placed in PCB Bulk Product Waste containers designated for disposal.

9. HEALTH AND SAFETY

9.1 JDC Health and Safety

JDC's written Health and Safety Plan (to be submitted separately to DCAMM under separate cover) details engineering controls, practices and procedures, protective equipment, and training that will be used to control and minimize exposures will be submitted. Additionally, JDC will perform personal air sampling on workers involved in the removal of PCB containing caulking and related activities, as required by OSHA and the project specifications. The procedures include, but are not limited to:

- Engineering controls and work practices to minimize airborne particulate in the work area, and to prevent the migration of such particulate outside the work area. These controls and practices instituted during abatement activities are designed to maintain workers' exposures to PCBs below 500 ug/m^3 (the OSHA permissible exposure limit for Aroclor 1254) and to reduce the potential of a release of PCBs from the work area. PCB personal sampling will be performed in accordance with NIOSH 5503 using florisil glass tubes and low volume personal sampling pumps.

- Engineering controls to help prevent the release of abatement debris from the work area and to provide weather protection for window openings during removal.

- Proper personal protective equipment (PPE) and respiratory protection equipment for entrance into the work area from the outside, as may be required by OSHA regulations.

- Chemical hygiene work practices that excludes eating, drinking, smoking, or in any way breaking the respiratory protection, if respirators are required, in work areas.

- Removal methods that minimize the amount of airborne dust generated from abatement activities.

- Handling, storage, transport, and disposal procedures for all classified PCB waste in a manner that minimizes exposure and that complies with federal, state, and local regulations regarding PCBs.

- Mandatory and proper use of decontamination facilities when exiting the work area.

- Supervision of work by a competent person.

9.2 OSHA Regulations

All applicable federal and state OSHA standards and regulations to ensure worker safety will be in effect during the abatement process. The following programs are to be addressed in JDC's Health and Safety Plan. This is not a comprehensive list of the required programs, and JDC is responsible for determining which programs apply and how best to implement the required programs.

- Fall Protection

- Personal Protective Equipment
- Lockout/Tagout
- Confined Spaces
- Machine Safety
- Ladder/Scaffolding Safety
- Electrical Safety
- Housekeeping (Slips, Trips, Falls)
- Injury Reporting
- First Aid
- HAZWOPER/HAZMAT
- Asbestos Abatement
- Lead in construction

9.3 Public Safety

JDC will be responsible for public safety during the abatement work as identified within this Plan. JDC will implement work area isolation measures designed to protect workers, occupants, and the environment from the release of PCB-containing materials.

Access to work areas will be limited to ensure that only authorized personnel aware of the abatement project will be within the Site limits. Proper hygiene and decontamination procedures must be followed to limit the potential for transferring PCB waste outside the work area.

JDC will conduct visual assessments to verify the effectiveness of the containment controls. If observations indicate that additional containment or engineering controls are required, JDC will be responsible for making the necessary adjustments to engineering controls and work practices to minimize fugitive emissions, as determined by the Lee Kennedy and DCAMM.

9.4 Perimeter Dust Monitoring

JDC will implement a general dust mitigation plan. This written plan is included in Appendix E. DCAMM will implement a dust monitoring program for total dust and PCBs as summarized in the April 4, 2011 Notification.

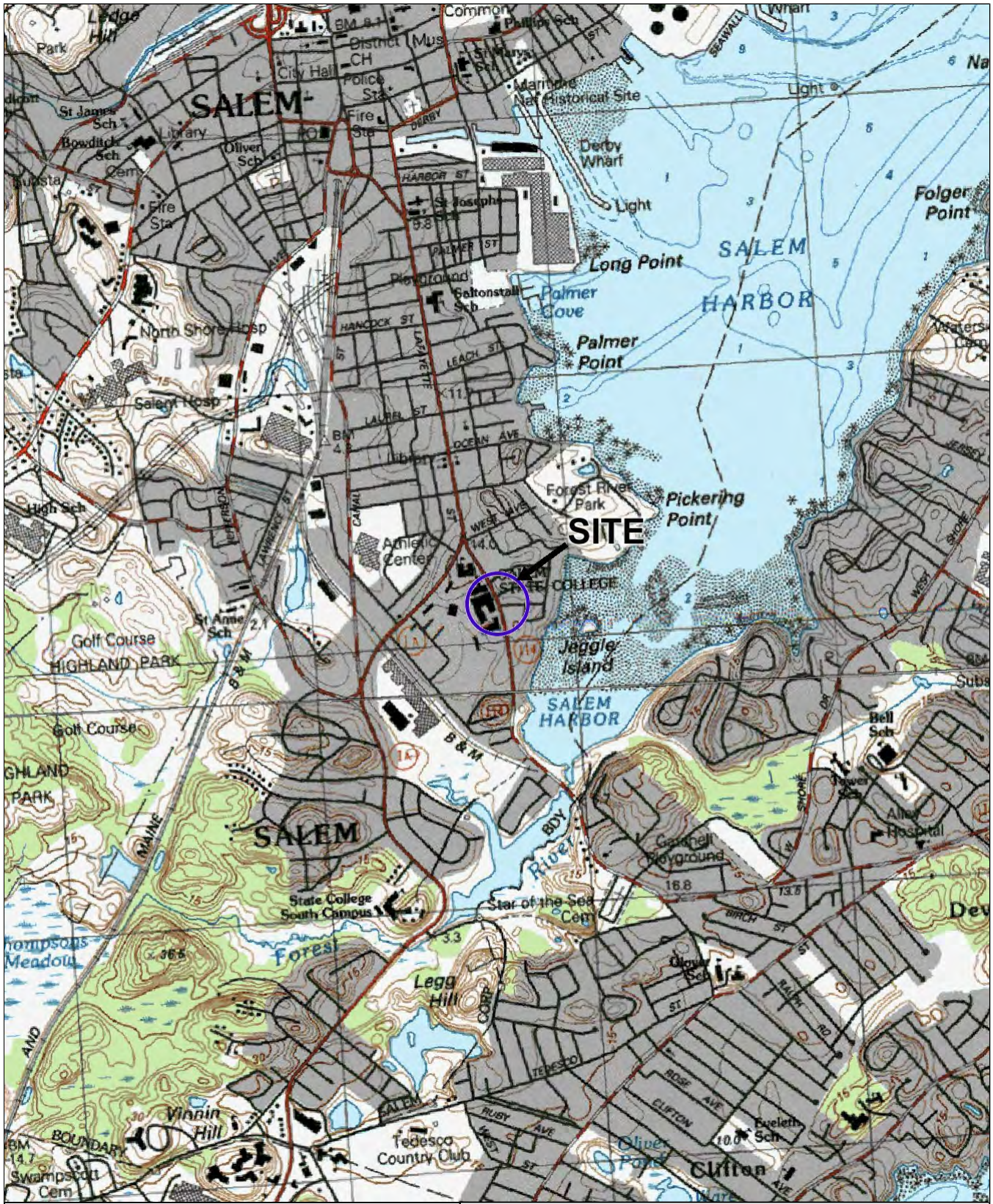
10. FINAL APPROVAL AND ACCEPTANCE

Final approval of the remedial work completed will be given when the following conditions are met:

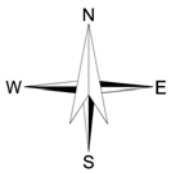
- The work has been completed in a professionally competent manner, as demonstrated by successful visual inspections.
- All requirements in the project specifications have been satisfied.
- DCAMM receives a completed and accurate waste record for PCB waste containers removed from the site.
- The work will not be considered complete until Lee Kennedy and DCAMM gives final approval.

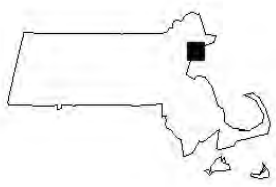
Appendix A

Project Figures



SITE COORDINATES:42°30'12"N 70°53'22"W





U.S.G.S. QUADRANGLE: SALEM, MA

HALEY & ALDRICH

SALEM STATE UNIVERSITY
360 LAFAYETTE STREET
SALEM, MASSACHUSETTS

PROJECT LOCUS

SCALE: 1:24,000
MARCH 2013

FIGURE 1

39761 1.PDF

N
W
E
S

LIMITS OF CONSTRUCTION (TYP)

EXISTING INLET PROTECTION (TYP)

EXISTING SHORING FOUNDATIONS. (TYP) SEE D-SERIES DRAWINGS

EXISTING SILTFENCE AND HAYBALE BARRIER

DEMO AREA B

BATHROOM

STAIRWELL #1

ELEVATOR #1

DEMO AREA C

DEMO AREA A

PHASE 2 LIBRARY DEMO AREA SEE D-SERIES DRAWINGS

EXISTING LIBRARY AREA DEMOLISHED AS PART OF PHASE 1

ELEVATOR #2

STAIRWELL #2

STAIRWELL #3

DISCONNECTED UTILITIES (TYP). SEE NOTE 4.

APPROXIMATE WORK LIMITS

LEGEND:

EXTERIOR BRICK AREAS TO BE SEGREGATED

NOTE:

BASE PLAN CREATED FROM DRAWING TITLED "EXISTING CONDITIONS PLAN, PHASE 2 -DEMOLITION, SALEM STATE UNIVERSITY, SALEM, MASSACHUSETTS" DATED 6 JULY 2012 FOR, DRAWING C1.002, BY DCAM (DIVISION OF CAPITAL ASSET MANAGEMENT, BUILDING FOR THE COMMONWEALTH) OF BOSTON, MASSACHUSETTS

0 30 60

APPROXIMATE SCALE IN FEET

HALEY & ALDRICH

SALEM STATE UNIVERSITY - PHASE 2
360 LAFAYETTE STREET
SALEM, MASSACHUSETTS

SITE PLAN

SCALE: AS SHOWN
MAY 2013

FIGURE 2

J:\GRAPHICS\39761\139761-010-B003.DWG

Appendix B

Commercial Product Data Sheets

MONARFLEX
SUPER T-PLUS FLAMESAFE
REINFORCED SCAFFOLD SHEETING

Commercial Product Data Sheet

Product Description
Monarflex Super T-Plus Flamesafe is a reinforced flame-retardant scaffold sheeting attached to scaffolding framework to provide site protection. Designed for use at high risk construction sites, Monarflex Super T-Plus Flamesafe provides job site material containment and weather protection with the added benefit of no flame propagation in the event of fire. It also provides enclosure for storage areas and the worksite perimeter, and debris containment for improved safety.

Product Benefits
- Prevents flame propagation; is self-extinguishing.
- Provides jobsite material containment.
- Surrounds storage areas.
- Encloses site and work areas at perimeter.
- Protects public from jobsite debris.
- Custom branding available.

Applicable Standards, Related References
- ASTM D 882 - Test Method For Tensile Properties of Thin Plastic Sheeting.
- ASTM E 96 - Test Method for Water Vapor Transmission of Materials.
- NFPA 701 - Standard Methods of Fire Tests for Flame Propagation of Textiles and Films.
- Building Research Est. Ltd. - Fire & Risk Sources, Div. #210780.
- Boston Flame Test - Boston Fire Department.

Quality Statements
Product is manufactured at an ISO 9001 - 2002 Certified facility.

Mock-up: A site-built mock-up may be desirable to confirm that:
- An assembly of sheeting and adjacent materials will achieve results desired.
- Adjacent affected materials and work will interface successfully.

Packaging
Sheeting materials: Individually wrapped rolls.
Accessory materials: In labeled containers.

Material
Composition: Low density virgin polyethylene (LDPE), interlayer of polyester multi-filament mesh.
Grommets: Molded plastic discs, fused with sheeting, with hole for attachment insertion or anchoring sheeting.

Measurements
Thickness: 8 mil (0.2 mm)

Roll Sizes:
13 ft x 157 ft (4 m x 47.2 m)
7 ft 4 in x 137 ft (2.2 m x 41.8 m)

Weights:
13 ft roll: 104 lb (47 kg)
7 ft 4 in roll: 54 lb (24 kg)

Accessories
- Monostud & Cable Tie: Used to fix sheet to scaffold for a tight seal at the grommet puncture site.
- Polytoggle and Wedge: Fixed into grommets to join sheets with a tight seal (when used with straps).
- Monobond: Double-sided sealant tape for air and watertight joints and laps.
- Anchor and Strap: A two-piece connector used when high wind resistance is required.
- Flexitie: A strong and flexible fixing from the grommet to the scaffold.
- Vents: Two-piece unit used to allow control of air flow at selected locations.
- Door Panels: Cream colored, with built-in zipper. Allows easy access to site.

Color & Texture
Cream, fiber mesh reinforced/embossed.

Preparation Work
- Prepare scaffolding to receive sheeting.
- Do not utilize components or accessories unacceptable to sheeting manufacturer.
- Remove items that may damage sheeting.

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Customer Service in North America: Toll Free 1-800-922-8800

An Icopal Group Company

MONARFLEX
SUPER T-PLUS FLAMESAFE
REINFORCED SCAFFOLD SHEETING

Commercial Product Data Sheet, Page Two

TECHNICAL DATA

Property	Test Method	Results
Elongation	ASTM D 882	14.5%
Tensile Strength*	ASTM D 882	MD 8,571 psi TD 9,988 psi
Tear Strength		53 lb/force
Light Transmission		70%
Flame Retardant	NFPA 701 (Test Method 2)	Passed
Reinforcement		1670 Dtex
Eyelet Pullout Strength		208 lb/force
Thermal Stability		-40°F to 140°F (-40°C to 60°C)
UV Resistance		Very good

*MD = Machine Direction. TD - Transverse Direction.

Application

- Always follow all OSHA safety guidelines.
- Roll out sheeting to minimize wrinkles and folds.
- Overlap grommets, edges, and ends a minimum 6 inches (150 mm).
- Fasten sheeting to scaffolding using Flexities, Cable Ties and Monostuds, or Polytoggles and Wedge. For high wind and resistance, fasten sheeting to scaffolding using Anchor and Strap.
- Seal laps and joints as required, using Monobond double-sided sealant tape.
- Join sheets using preferred fastening system.
- Install vents where air flow is required.
- Install door panels where access is required.

Coverage

13 ft (4 m) wide rolls:
Covers approximately 2,041 sq ft (187 sq m), less lap allowance.

7 ft 4 in (2.2 m) wide roll:
Covers approximately 1000 sq ft (93 sq m), less lap allowance.

Limited Warranty

Siplast warrants this product to be free of defects in workmanship and materials only at the time of shipment from our factory. If any Siplast materials prove to contain manufacturing defects that substantially affect their performance, Siplast will, at its option, replace the materials or refund its purchase price.

This limited warranty is the only warranty extended by Siplast with respect to this material. There are no other warranties, including the implied warranties of merchantability and fitness for a particular purpose. Siplast specifically disclaims liability for any incidental, consequential, or other damages, including but not limited to, loss of profits or damages to a structure or its contents, arising under any theory of law whatsoever.

The dollar value of Siplast's liability and buyer's remedy under this limited warranty shall not exceed the purchase price of the Siplast material in question.

Appendix C

Material Safety Data Sheets

MATERIAL SAFETY DATA SHEET
(Complies with OSHA CFR 1910.1200, ANSI Z 400.1-1998)

SECTION 1: Chemical Product & Company Identification

Product Name: CAPSUR®
Chemical Name: Aromatic hydrocarbon mixture

Manufacturer Name & Address: **INTEGRATED CHEMISTRIES**
P.O. Box 10558
White Bear Lake, MN 55110

Telephone Contact Number & Hours of Operation: (651) 426-3224, 8 a.m. - 5 p.m. Central Standard Time
Website/E-mail: www.integratedchemistries.com / info@integratedchemistries.com
Emergency Telephone Contact Number: CHEM-TEL, INC.
Domestic: 800-255-3924
International: 813-248-0585

SECTION 2: Composition/Information on Ingredients

The exact identity of the ingredients of this product are considered confidential because they are a trade secret. The hazards associated with these ingredients are addressed in this document. For specific information on these trade secret ingredients, assistance or information on the management of exposures or spills, please call PROSAR at 1-800-228-5635. The occupational exposure limits listed below apply to this product.

		OSHA PEL		**ACGIH TLV**	
Hazardous Ingredients(*):	CAS No.	TWA	STEL	TWA	STEL
Naphthalene	91-20-3	10 ppm	NE	10 ppm	15 ppm
Trimethylbenzenes	25551-13-7	NE	NE	25 ppm	NE
Ethylene glycol monobutyl ether(skin)	111-76-2	50 ppm	NE	20 ppm	NE
Monoethanolamine	141-43-5	3 ppm	NE	3 ppm	6 ppm
Potassium hydroxide	1310-58-3	NE	NE	NE	2 mg/m$^{3(C)}$
Cyclohexanol(skin)	108-93-0	50 ppm	NE	50 ppm	NE

*all ingredients in quantities > 1.0 % (0.1 % for carcinogens) that are **potentially** hazardous per OSHA definitions
NDA = no data available

NE = not established

Skin -potentially harmful amounts can be absorbed through the skin

C -ceiling value

Some States enforce the PEL's that OSHA promulgated in 1989, which were subsequently vacated by the U.S. Supreme Court. Check with your State OSHA agency to determine which PEL is enforced in your jurisdiction.

SECTION 3: Hazards Identification EMERGENCY OVERVIEW

Physical description: Clear green liquid

Odor: mild solvent odor

Potential Health Effects: WARNING! Causes eye and skin irritation. Vapors and mists are expected to cause upper respiratory tract irritation with coughing and nasal discharge. Vapors and mists may cause central nervous system depression with dizziness, drowsiness and incoordination. Harmful amounts may be absorbed through the skin. May be harmful or fatal if swallowed-potential aspiration hazard. Repeated or prolonged occupational exposure to solvents has been associated with permanent brain and nervous system damage. Repeated or prolonged exposure may cause skin allergic reactions and defatting of the skin (which can cause dermatitis). Personnel responding to a spill of this material should wear appropriate personal protective equipment.

Fire Fighting Measures: **Combustible liquid and vapor**. Keep away from heat, sparks or open flames.

NFPA RATING:	Health - 2	Flammability - 2	Reactivity - 1	Special-NDA
HMIS RATING:	Health - 2	Flammability - 2	Reactivity - 1	Protective Equipment - X

SECTION 4: First Aid Measures

Skin Contact: Remove contaminated clothing. Flush affected area with water for at least 15 minutes. Wash affected area with mild soap and water. Seek medical attention if symptoms develop and persist.
Ingestion: Immediately rinse mouth out and give sips of water (NEVER give anything by mouth to an unconscious person). DO NOT INDUCE VOMITING. Seek medical attention immediately.
Eye Contact: Immediately flush with plenty of water. Remove contact lenses (if easy to do) and continue flushing for at least 15 minutes. Seek medical attention immediately.

Inhalation: Remove to fresh air. Seek medical attention if breathing becomes difficult.

Antidotes/Notes to Physicians: No known antidote. This product is potentially an aspiration hazard.

SECTION 5: Fire Fighting Measures

Flashpoint: 145° F (63° C) COC

Autoignition temperature: NDA

Flammable Limits: LEL: 0.5 UEL: 6.0

Extinguishing media: Use water spray, fog, regular foam, dry chemical or carbon dioxide

Hazardous products of combustion: Carbon monoxide, carbon dioxide, nitrogen containing compounds (NO_2, NO_x), sulfur containing compounds (SO_2, SO_x)

Unusual fire and explosion hazards: Combustible liquid and vapor. Keep away from heat, sparks and flame. Containers may explode when heated. Cool containers exposed to heat and flame with water spray. When heated, vapors may form explosive mixtures with air and pose an explosion hazard indoors, outdoors, and in sewers. Do not direct a solid stream of water or foam into the burning material as this may cause spattering and

spread the fire. Water used to extinguish a fire should not be allowed to enter the drainage system.

Protective Equipment: Use NIOSH/MSHA approved SCBA and full protective gear.

SECTION 6: Accidental Release Measures

Extinguish all ignition sources immediately. Do not attempt to clean up chemical spills without appropriate personal protective equipment (see section 8). Do not touch or walk through spilled material. For small spills, absorb or cover with dry earth, sand or other non-combustible material and transfer to sealable containers for disposal. For large spills, dike around spill for later disposal. Prevent entry into waterways, sewers, basements, or confined areas. Do not get water inside containers. Ventilate area and wash spill site after material pickup is complete. See section 13 for information on the disposal of recovered material.

SECTION 7: Handling & Storage

Handling: Avoid eye and skin contact. Avoid breathing mists and vapors.

Storage: Store upright in a cool, dry, well-ventilated area out of direct sunlight. Store away from incompatible materials (see Section 10). Keep containers tightly closed at all times. Protect containers from physical damage. Do not reuse container. Use with proper personal protective equipment (see Section 8). Keep out of reach of children.

SECTION 8: Exposure Controls & Personal Protective Equipment

Engineering Controls: Use local exhaust in processing or storage areas. If any of the limits in section 2 are exceeded, local ventilation or respiratory protection may be necessary.
Skin: Protective gloves recommended to prevent skin contact. Contact glove manufacturer for more information.

Eye Protection Wear safety goggles.

Respiratory: If industrial hygiene surveys show that the exposure limits in Section 2 are exceeded, use of a NIOSH approved respirator is necessary. Seek professional advice prior to respirator selection or use. Follow OSHA respirator regulations (29 CFR 1910.134). Use a positive pressure air supplied respirator if there is a potential for an uncontrolled release, exposure levels are not known, or under any other circumstances where air-purifying respirators may not provide adequate protection.

SECTION 9: Physical & Chemical Parameters

Physical State: Liquid
Odor: solvent odor
Vapor Density (air = 1): 4.8
Boiling Point: 212°F (100°C)
Viscosity: NDA
Specific Gravity: 0.965-0.985 @ 60°F (16°C)
Solubility in water: Moderate

Appearance: Clear green
Vapor Pressure: Negligible
Percent Volatile by Volume: 60%
Freezing Point: NDA
Melting Point: < 32°F (0°C)
Bulk Density: NDA
pH: 11.0 (undiluted)

SECTION 10: Stability & Reactivity

Stability: Stable

Incompatible Materials and conditions to avoid: Rubber, plastic, strong acids, strong oxidizing agents, heat, temperatures approaching the flashpoint.

Hazardous polymerization: Will not occur.

Hazardous decomposition products: Carbon monoxide, carbon dioxide, nitrogen containing compounds (NO_2, NO_x), sulfur containing compounds (SO_2, SO_x)

SECTION 11: Toxicological Information

There are no product-specific toxicological data available addressing either acute or chronic exposure. Exposure to this product can occur by eye and skin contact, inhalation of vapors or mists, and ingestion. Skin contact is expected to cause moderate to severe irritation. Prolonged or repeated skin contact may cause skin allergic reactions (sensitization) and defatting of the skin resulting in dermatitis. Harmful amounts may be absorbed through the skin. Absorption of large amounts may cause headache, nausea, vomiting and dizziness. Eye contact is expected to cause moderate to severe irritation. Exposure to mists or vapors is expected to cause upper respiratory tract irritation (with coughing and nasal discharge), eye irritation, and central nervous system depression (with headache, weakness, dizziness, nausea and loss of coordination and judgment. Exposure to high concentrations of mists or vapors may cause liver and kidney injury, asthmatic bronchitis, narcosis, pulmonary edema, and possibly death. Ingestion is expected to cause nausea, vomiting, and diarrhea along with severe irritation to the moth, throat, esophagus, and gastrointestinal tract. Eye changes such as cataract formation and retinal damage have been documented in animal studies following ingestion of naphthalene. Aspiration of this product into the lungs may cause chemical pneumonitis, a potentially fatal condition, which is initially characterized by coughing, choking, difficulty breathing, and possibly pulmonary edema and hemorrhage. There were no data available for this product addressing potential reproductive, developmental, mutagenic or carcinogenic effects following exposure to this product.

Ingredient Based Information: The exact ingredients of this product are considered a trade secret.

Carcinogens: None per OSHA, NTP, or IARC
Target Organs: All tissue (moderate to severe irritation), eyes, lungs, central nervous system, liver, kidneys.

Medical Conditions that May be Aggravated by Exposure: Respiratory diseases (e.g. bronchitis, asthma), liver, kidney and central nervous system disorders.

SECTION 12: Ecological Information

Ecotoxicity: NDA **Environmental Fate:** NDA

SECTION 13: Disposal Considerations

This material (as packaged) may be considered a hazardous waste. Be aware that the waste owner has responsibility for final disposal. Regulations may also apply to empty containers, liners or rinsate. Laws may change or be reinterpreted; state and local regulations may be different from federal regulations. This information applies to materials as manufactured; contamination or processing may change waste characteristics and requirements.

SECTION 14: Transport Information

DOT Hazard Description: Combustible liquid, n.o.s., combustible liquid, NA1993, PGIII

This shipping description is only valid for use within the United States of America.

SECTION 15: Regulatory Information

Chemical Inventories: The components of this product listed in Section 2 are listed on the TSCA Inventory List, the DSL/NDSL and the EINECS.

Reportable Quantities (RQ) (40 CFR table 302.4):

Naphthalene (CAS#91-20-3)	100 lbs (45.4 kgs)
Dodecylbenzyl sulfonic acid (CAS# 27176-87-0)	1000 lbs (454 kgs)
Potassium hydroxide (CAS# 1310-58-3)	1000 lbs (454 kgs)

SARA TITLE III (Superfund Amendments and Reauthorization Act):
Section 302 Extremely Hazardous Materials (40 CFR 355): None listed

Sections 311/312 Hazard Categories (40 CFR 370):

Immediate (Acute) Health Effects:	YES
Delayed (Chronic) Health Effects:	YES
Fire Hazard:	YES
Sudden Release of Pressure Hazard:	NO
Reactivity Hazard:	NO

Section 313 Toxic Chemical Release Reporting (40 CFR 372.65(a)): Naphthalene (CAS# 91-20-3), 1,2,4-trimethyl benzene (CAS# 95-63-6) and cyclohexanol (CAS# 108-93-0).

STATE REGULATORY INFORMATION: Since each state has the authority to promulgate standards more stringent than the federal government, this section cannot provide an inclusive list of all state regulations, which apply to this product. Questions related to state regulations should be directed toward local officials.

SECTION 16: Other Information

For additional information, refer to the 2000 North American Emergency Response Guidebook and the ACGIH Documentation of the Threshold Limit Values.

This information is provided in good faith, but without express or implied warranty.

This MSDS was prepared by Environmental Health & Safety, Inc., St. Paul, MN, 55116, USA

Appendix D

JDC and Absolute Environmental Certifications

Haley & Aldrich, Inc.
465 Medford St.
Suite 2200
Boston, MA 02129

Tel: 617.886.7400
Fax: 617.886.7600
HaleyAldrich.com

HALEY&
ALDRICH

CERTIFICATION STATEMENT

PCB Cleanup and Disposal
Approval under 40 CFR §761.61(a) and (c) and § 761.790(h)

The Commonwealth of Massachusetts
Division of Capital Asset Management (DCAM)
Salem State University (Responsible Party)

JDC Demolition Company, Inc. (Demolition Contractor)

Absolute Environmental, Inc. (Asbestos/PCB Abatement Contractor)

Former Salem State University Library
360 Lafayette Street
Salem, Massachusetts

This certification is being provided as required by conditions outlined in the US Environmental Protection Agency (EPA) *Approval for PCB Cleanup and Disposal under 40 CFR §761.61(a) and (c) and §761.790(h)* dated April 13, 2011 and as amended _____2013 (the Approvals). Specifically, condition number 11a requires that the demolition/abatement contractor submit the following information:

> *"a certification signed by its selected contractor, stating that the contractor(s) has read and understands the Notification, and agrees to abide by the conditions specified in the Approval and in the contractor work plan".*

JDC Demolition Company, Inc. of Brockton, MA and their selected abatement contractor Absolute Environmental of Salem, NH have been selected by DCAM as the abatement/demolition contractors for this project and have been provided a copy of the *PCB Remediation Plan and Amendments* (the "Notifications") and the Approvals noted above. By signing below, JDC Demolition Company and Absolute Environmetnal state that they have read and understand the Notifications, and agree to abide by the conditions specified in the Approvals.

_____ _____
JDC Demolition Company, Inc. Date

_____ _____
Absolute Environmetnal, Inc. Date

Appendix E

Dust Mitigation / Noise Plan

JDC DEMOLITION COMPANY INC

338 HOWARD STREET, BROCKTON, MA 02302

DUST/NOISE/VIBRATION CONTROL PLAN

SALEM STATE UNIVERSITY LIBRARY
PHASE II DEMOLITION
SALEM, MASSACHSETTS

The following is a brief summary of the controls to be utilized by JDC Demolition in performance of the planned work activities at the above-mentioned project site. These controls are generally stated in the Health & Safety Plan but further highlighted in this plan.

Dust Control

For this project JDC has one major operation that will generate dust; that would be the demolition of the former library building. One of the major sources used for control of dust is water. This is more widely used for the complete demolition of the building verses the selective demolition where water can itself create a potential hazard.

Prior to the structural demolition, interior components shall be removed to allow for easier segregation and reduce potential for further dust. JDC has two (2) Monsoon Dust Suppression Turbines that will be strategically placed in the work area for dust control. Furthermore, the Volvo 700 High Reach excavator has a dust suppression device, built into the high reach attachment for immediate, localized dust suppression. In addition, fire hoses will be hooked up to fire hydrants used to control dust during controlled demolition of the building. JDC operators have years of experience in controlled demolition and are surgical in their approach to not only control the demolition but prevent accidents and mitigate dust. This controlled demolition along with the use of water as described help to ensure minimal dust issues during work.

During selective demolition, the entire building will be wrapped with Monarflex barrier to prevent dust from leaving the work area. During structural demolition of the main section of the building, but after the perimeter staging has been removed, JDC will attach additional Monarflex barrier to the building on the east end as an additional layer of dust mitigation for the project.

It should be noted that respiratory protection is available and used by employees for their protection but is not meant by any means to be consider a means of addressing dust issues. Continued good housekeeping practices supplemented with fans will help to maintain a safe working environment and protect employees and public from dust issues.

In addition, site controls in-place by others such as cleaning dirt off vehicles before leaving site and street sweeping will help to maintain dust issues on the site.

Noise Control

With an operation that utilizes heavy equipment, there is a potential for significant noise. Equipment that is kept in good operating condition, with machine housings that are tightly fastened and do not rattle and properly operating mufflers, can all help to reduce noise issues. This equipment will be utilized for the demolition of the buildings and are keys to ensure reduced noise levels include that the proper mufflers are in-place and the equipment is well maintained to ensure noise levels required by the project are maintained.

With interior work, equipment with mufflers and filters have greatly reduced noise other activities such as bobcat use, the larger concern is for worker exposure, although the requirements to maintain levels at a certain decibels is required we look at ensuring worker exposure by reducing the need for such activity or varying time performing that work. Through monitoring and oversight both objectives can be met to ensure public safety as well as safety of the employee. The exterior Monarflex barrier on the scaffolding will also help contain the noise to within the project work area.

Noise monitoring in the work area will be done whenever noise exposures are believed to meet or exceed 90 dBA for an 8-hour workday. The equipment used to monitor the exposure will be a sound level meter calibrated with an acoustic calibrator prior to and after the sampling period. Employee monitoring can also be done using a calibrated noise dosimeter. The procedures must follow 29 CFR 1910.95. All JDC employees or subcontractors will wear hearing protection if their 8-hour time-weighted noise exposure exceeds 90 dBA. Whenever measured noise levels exceed 90 dBA averaged over an eight-hour workday, controls such as engineering methods will be followed. Workers will be provided with PPE for protection, however this is not meant as a means of abating noise issues but in addition to engineering controls used at the site. Specific methods of work are outlined in the demolition plan and operations will be evaluated throughout the project.

Vibration Controls

Vibration controls shall be implemented to maintain acceptable levels. Best practices shall be employed to control vibration as dictated by the specifications. Processes shall be followed to meet those requirements for protection of the surrounding buildings. Various will work to control vibration levels at the site (interior & exterior). Processes shall be evaluated to determine most effective means to control. Operations that cause excessive vibration shall be avoided. JDC will determine effective measures and the specific procedures would be better defined in demolition plan and will be addressed on a case by case basis dependent on specific work planned.

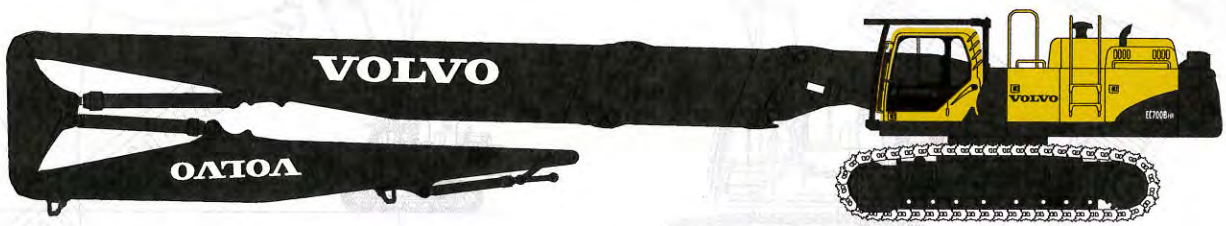
Appendix F

Equipment List

VOLVO EXCAVATORS

DEMOLITION

EC210CLD - EC700CLD STANDARD DEMOLITION
EC360CHR / EC460CHR / EC700BHR HIGH REACH DEMOLITION



EC210CLD - EC700CLD
Standard Demolition

- **Engine power, net:**
  110 kW to 316 kW
  147 hp - 424 hp
- **Operating weight:**
  21,7 t - 70,6 t
  47,840 lb - 155,650 lb
- **Maximum digging reach:**
  10.4 m - 14.8 m
  34' 1" - 48' 6"

EC360CHR
High Reach Demolition

- **Engine power, net:**
  205 kW
  275 hp
- **Operating weight:**
  44,4 t - 47,6 t
  97,700 lb - 105,000 lb
- **Additional counterweight:**
  3,8 t
  8,370 lb
- **Maximum pin height:**
  21,0 m
  68' 11"

EC460CHR
High Reach Demolition

- **Engine power, net:**
  245 kW
  329 hp
- **Operating weight:**
  52,6 t - 56,6 t
  115,910 lb - 124,720 lb
- **Additional counterweight:**
  3,8 t
  8,370 lb
- Maximum pin height:
  27,3 m
  89' 7"

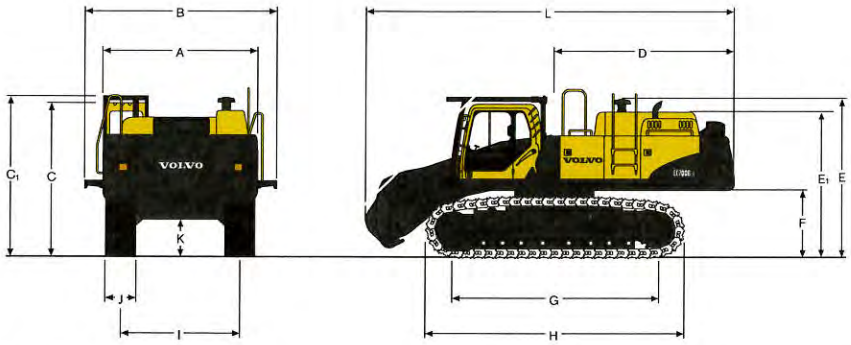
EC700BHR
Ultra High Reach Demolition

- **Engine power, net:**
  316 kW
  424 hp
- **Operating weight:**
  81,5 t - 88,5 t
  179,590 lb - 195,020 lb
- **Additional counterweight:**
  4,6 t
  10,140 lb
- **Maximum pin height:**
  29,0 m - 32,0 m
  95' 2" - 105' 0"

MORE CARE. BUILT IN.

SPECIFICATIONS HIGH REACH / ULTRA HIGH REACH DEMOLITION

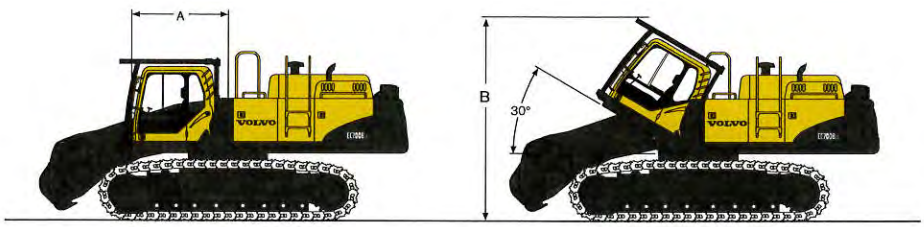
Dimensions



Dimensions of basic demolition machines

Description		EC360CHR Undercarriage hydraulically retractable	EC460CHR Undercarriage mechanically retractable	EC460CHR Undercarriage hydraulically retractable (Standard)	EC700BHR Undercarriage mechanically retractable	EC700BHR Undercarriage hydraulically retractable (Standard)
A. Superstructure width	mm	2,990	2,990	2,990	3,420	3,420
	ft-in	**9' 10"**	**9' 8"**	**9' 8"**	**11' 3"**	**11' 3"**
B. Overall width with walkway	mm	3,320 (left side)	3,590 (both sides)	3,590 (both sides)	4,290 (both sides)	4,290 (both sides)
	ft-in	**10' 11" (left side)**	**11' 8" (both sides)**	**11' 8" (both sides)**	**14' 1" (both sides)**	**14' 1" (both sides)**
Overall width with SIPS*	mm	3,190	3,190	3,190	-	-
	ft-in	**10' 5"**	**10' 5"**	**10' 5"**		
Overall width with SIPS removed*	mm	3,055	3,055	3,055	-	-
	ft-in	**10' 0"**	**10' 0"**	**10' 0"**		
C. Overall height	mm	3,200	3,260	3,260	3,480	3,480
	ft-in	**10' 6"**	**10' 7"**	**10' 7"**	**11' 5"**	**11' 5"**
C_1. Overall height (including FOG)	mm	3,330	3,460	3,460	3,610	3,610
	ft-in	**10' 11"**	**11' 4"**	**11' 4"**	**11' 10"**	**11' 10"**
D. Tail swing radius	mm	3,560	3,880	3,880	4,090	4,090
	ft-in	**11' 7"**	**12' 7"**	**12' 7"**	**13' 5"**	**13' 5"**
E. Overall height of pre-cleaner	mm	-	-	-	3,590	3,590
	ft-in				**11' 9"**	**11' 9"**
E_1. Overall height of engine hood	mm	2,700	2,750	2,750	-	-
	ft-in	**8' 8"**	**9' 0"**	**9' 0"**		
F. Minimum counterweight clearance*	mm	1,210	1,275	1,275	1,510	1,510
	ft-in	**4' 0"**	**4' 2"**	**4' 2"**	**4' 11"**	**4' 11"**
G. Tumbler length	mm	4,240	4,370	4,370	4,750	4,750
	ft-in	**13' 11"**	**14' 3"**	**14' 3"**	**15' 7"**	**15' 7"**
H. Track length	mm	5,180	5,370	5,370	5,990	5,990
	ft-in	**17' 0"**	**17' 6"**	**17' 6"**	**19' 8"**	**19' 8"**
I. Track gauge (extended)	mm	3,380	2,890	3,380	3,350	3,740
	ft-in	**11' 1"**	**9' 6"**	**11' 1"**	**11' 0"**	**12' 3"**
Track gauge (retracted)	mm	2,390	2,390	2,400	2,750	2,750
	ft-in	**7' 10"**	**7' 8"**	**7' 9"**	**9' 0"**	**9' 0"**
J. Shoe width	mm	700	700	700	750	750
	in	**27"**	**27"**	**27"**	**26"**	**26"**
K. Minimum ground clearance*	mm	400	550	550	860	630
	ft-in	**1' 4"**	**1' 8"**	**1' 8"**	**2' 10"**	**2' 1"**
L. Overall length	mm	7,120	7,540	7,540	8,380	8,380
	ft-in	**23' 4"**	**27' 7"**	**27' 7"**	**27' 6"**	**27' 6"**
Total weight without additional counterweight	t	35.0	45.0	49.6	61.0	68.0
	lb	**77,160**	**99,210**	**109,350**	**134,480**	**149,910**

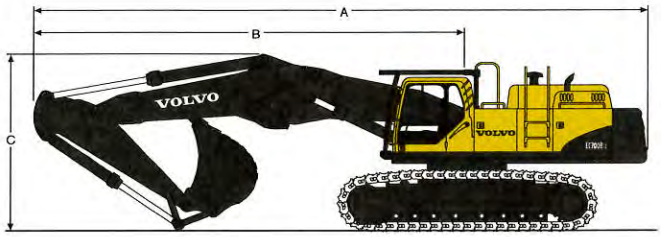
* With shoe grouser



Dimensions of demolition machine with tilting cab

Description		EC360CHR	EC460CHR	EC700BHR
A. Tilting cab length	mm	1,960	2,040	2,120
	ft-in	**6' 4"**	**6' 7"**	**6' 11"**
B. Cab height when fully tilted	mm	4,135	4,260	4,450
	ft-in	**13' 6"**	**13' 9"**	**14' 7"**
Cab tilting angle	degree	**30°**	**30°**	**30°**

Dimensions

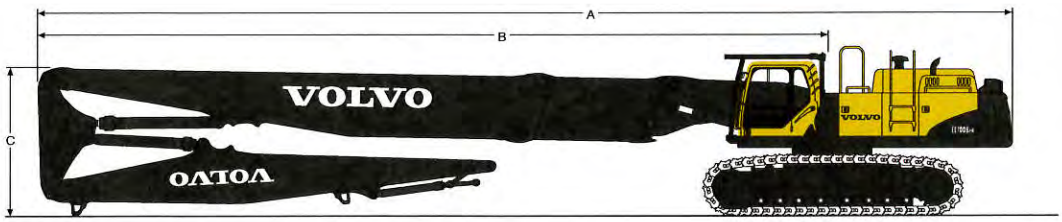


Dimensions of demolition machine including backhoe equipment (position for transport)

Description		EC360CHR		EC460CHR		EC700BHR	
Boom		Straight boom 6.8 m/22' 4"		Straight boom 7.5 m / 24' 6"		Straight boom 8.3 m/27' 3"	
Arm	m	3.2	3.9	3.35	3.9	3.55	4.2
	ft-in	10' 6"	12' 10"	10' 6"	12' 10"	11' 8"	13' 9"
A. Overall length	mm	11,600	11,470	12,730	12,710	13,760	13,660
	ft-in	38' 0"	37' 6"	41' 8"	41' 7"	45' 1"	44' 10"
B. Swing center to front of equipment	mm	8,010	7,870	8,850	8,830	9,670	9,570
	ft-in	26' 3"	25' 10"	29' 0"	28' 9"	31' 9"	31' 5"
C. Maximum height of boom in transport position	mm	3,320	3,970	3,500	3,660	4,220	4,430
	ft-in	10' 11"	13' 0"	11' 5"	12' 0"	13' 10"	14' 6"
Operating weight, excluding bucket	t	37.2	37.3	56.1	56.3	67.6	68.0
	lb	82,011	82,232	123,679	124,120	149,032	149,914

Dimensions of demolition machine including 3-piece demolition attachment

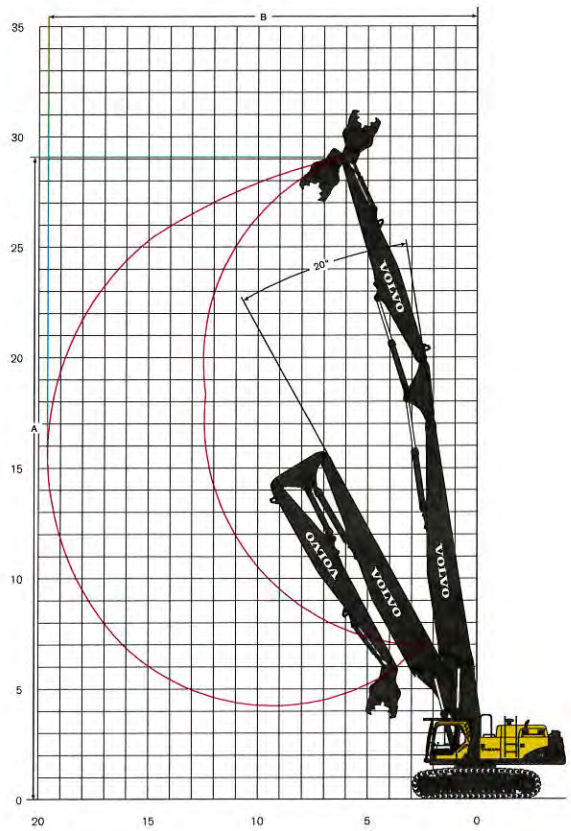
Description		EC360CHR	EC460CHR	EC700BHR
A. Overall length	mm	14,350	19,280	19,130
	ft-in	47' 1"	63' 2'	62' 9"
B. Swing center to front of equipment	mm	10,960	15,400	15,040
	ft-in	35' 11"	50" 5'	49' 4"
C. Maximum height of boom in transport position	mm	3,110	3,070	3,350
	ft-in	10' 2"	10" 1'	11' 0"



Dimensions of demolition machine including 3-piece demolition attachment and boom extension

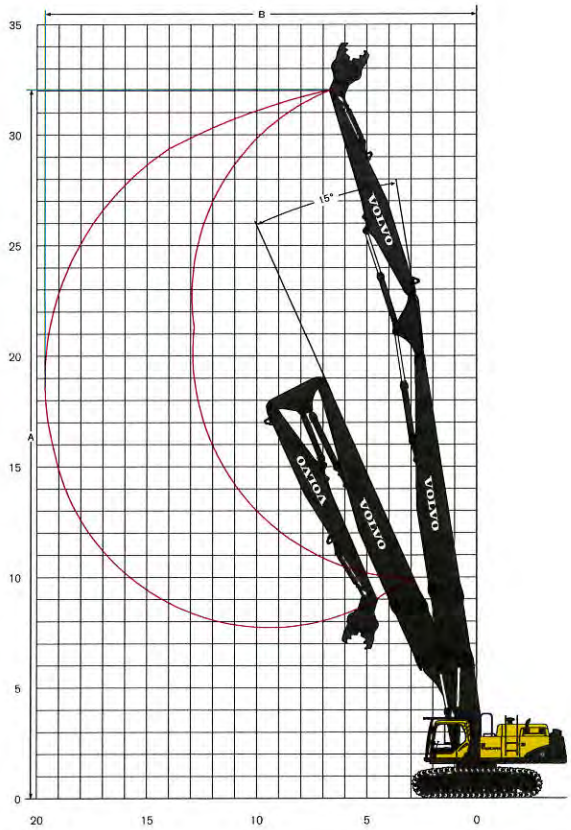
Description		EC700BHR
A. Overall length	mm	22,130
	ft-in	72' 7"
B. Swing center to front of equipment	mm	18,040
	ft-in	59' 2"
C. Maximum height of boom in transport position	mm	3,340
	ft-in	10' 11"

Working ranges & digging forces



EC700BHR demolition machine with 3-piece demolition boom

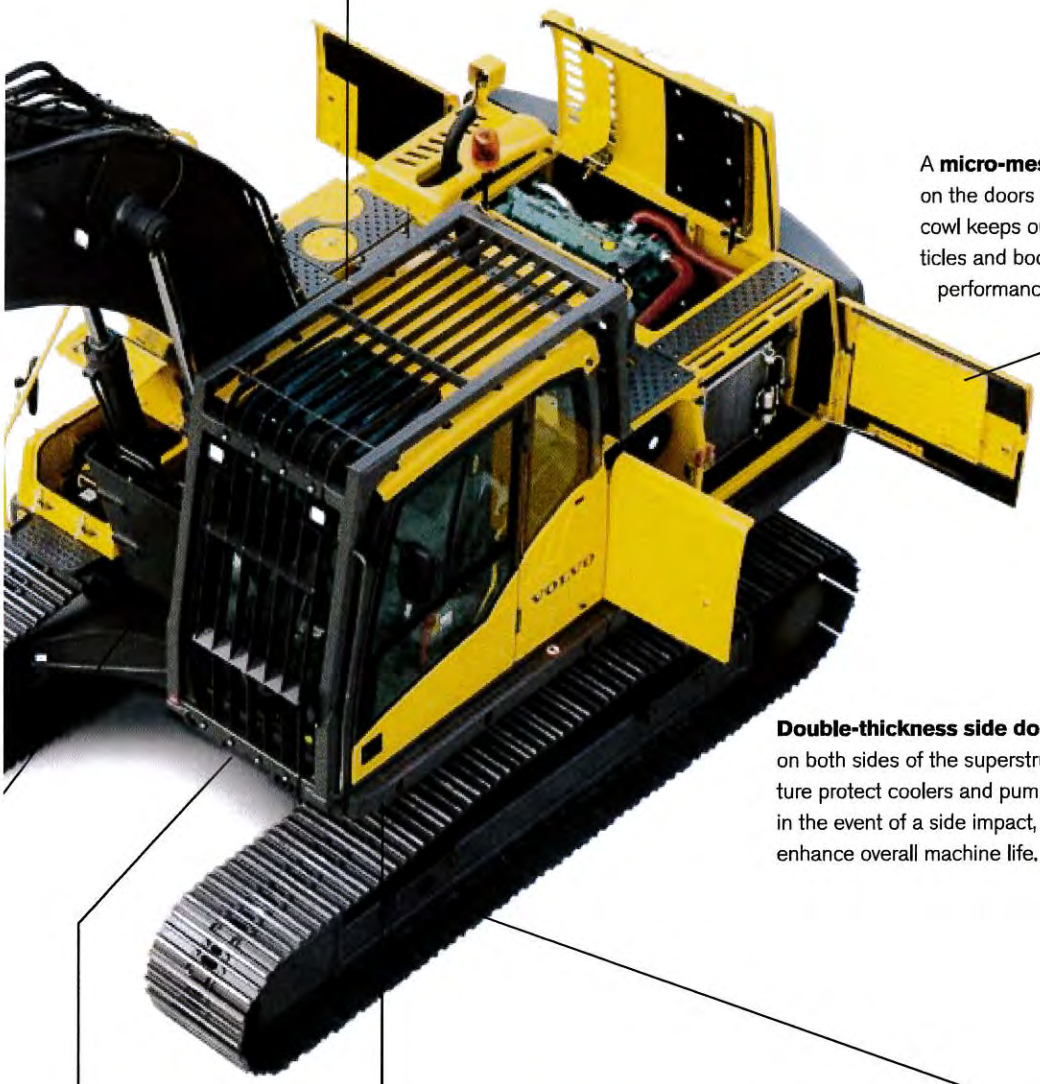
Description		EC700BHR
A. Maximum pin height	mm ft-in	29,050 **95' 4"**
B. Maximum pin reach	mm ft-in	19,550 **64' 2"**
Maximum tool weight	t lb	3.5 **7,710**



EC700BHR demolition machine with 3-piece demolition boom and boom extension

Description		EC700BHR
A. Maximum pin height	mm ft-in	32,010 **105'**
B. Maximum pin reach	mm ft-in	19,620 **64' 4"**
Maximum tool weight with extension	t lb	3.0 **6,610**

Note: Attachment pinning dimensions are same as EC290C dimensions for EC700BHR



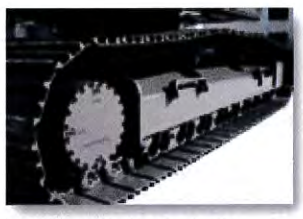
A **micro-mesh screen** on the doors and engine cowl keeps out fine particles and boosts engine performance.

Double-thickness side doors on both sides of the superstructure protect coolers and pumps in the event of a side impact, and enhance overall machine life.

Enhanced 8 mm (0.31 in) under-guarding of the superstructure and **10 mm (0.39 in) guarding under the slew ring,** with bolt-head protection.

The bolt-on **side impact protection system** protects the superstructure from damage.

Punched plate is welded to the top of the rail along the cab entrance to provide sure grip for the operator.



Full-length track-chain guards keeps out demolition debris and prevents rebar or other sharp objects from lodging in the tracks.

Machines

Non-Current Machine Line

Work Tool Attachments

» Augers
» Backhoes
» Blades
» Brooms
» Brushcutters
» Buckets - Backhoe Front
» Buckets - Backhoe Rear
» Buckets - Compact Wheel Loader
» Buckets - Excavator
» Buckets - Loader
» Buckets - Skid Steer Loader
» Buckets - Telehandlers
» Cold Planers
» Compactors
» Couplers - Backhoe Rear
» Couplers - Excavator
» Couplers - Loader
» Delimbers
» Felling Heads
» Forks - Backhoe Loader
» Forks - Compact Wheel Loader
» Forks - Loader
» Forks - Skid Steer Loader
» Forks - Telehandler
» Grapples
» Hammers
» Harvester Heads
» Material Handling Arms
» Mulchers
» Multi-Processors
› Multi-Processor with Concrete Cutter Jaws
· MP20 CC
· MP30 CC
· MP40 CC
› Multi-Processor with Crusher Jaws
› Multi-Processor with Primary Pulverizer Jaws
› Multi-Processor with Secondary Pulverizer Jaws
› Multi-Processor with Shear Jaws
› Multi-Processor with

Filter by Machines: All Machine Families

MULTI-PROCESSOR - CONCRETE CUTTER

Overview | Walkaround | Gallery | Compatibility

Cat Multi-Processor - Concrete Cutter Highlights

- Used for cutting heavily reinforced concrete with large diameter, densely packed rebar.
- Three replaceable crusher teeth easily reduce thick concrete in the front part of the jaw.
- Straight-line knives in the lower jaw work with angled cutting edge in the upper jaw to maximize the effective rebar cutting force.
- Reversible knives with a balanced hardness and yield/tensile strength keep knife wear to a minimum.
- Side cutter protects the non-cutting side of the lower jaw from excessive wear.
- Wear plates are welded on to the front plate of the lower jaw to protect the base metal of the jaw.

Units: US | Metric

Model	Weight (housing, jaw and bracket)	Weight (jaw only)	Arm Torque - Fully Open
» MP20 CC	2660 kg	930 kg	844 kN·m
» MP30 CC	3850 kg	1260 kg	1257 kN·m
» MP40 CC	6370 kg	2230 kg	1855 kN·m

RELATED LINKS
» Locate Your Dealer
» Work Tool Safety
» Finance & Insurance

RELATED LINKS
» Financing & Insurance
» Operator Training
» Maintenance & Support
» Buy Parts

226B SERIES 3 SKID STEER LOADER

The Cat® 226B Series 3 Skid Steer Loader, with its many work tool options, delivers outstanding performance to help you get more done and increase your bottom line. Spacious, ergonomic operator station and easy-to-use pilot operated joystick controls keep you comfortable throughout the work day. High performance power train, advanced hydraulic system and traditional Cat reliability improve your productivity in the toughest working conditions.

Starting at $32,290 MSRP(USD)*

Lease a Skid Steer Loader for as low as $340 ($322 CAD) per month ***

Get a Quote

Used Skid Steer Loaders

View Used Skid Steer Loaders

Rent Skid Steer Loaders

Rent a Skid Steer

Download 226B3 Specs
Download 226B3 Brochure

Specifications | Benefits & Features | Standard / Optional Equip. | Work Tool Attachments | Machine Comparison

SPECIFICATIONS

Units: **US** | **Metric**

Engine	
Engine Model	Cat® C2.2 T
Net Flywheel Power	56 hp
Gross Power	61 hp
Gross Power SAE J1995	61 hp
Net Power EEC ISO 9249	56 hp
Net Power SAE 1349	56 hp
Displacement	134 in3
Stroke	3.9 in
Bore	3.3 in
Weights	
Operating Weight	5822 lb
Operating Specifications	
Rated Operating Capacity	1500 lb
Rated Operating Capacity w/Optional Counterweight	1600 lb
Tipping Load	3000 lb
Breakout Force, Tilt Cylinder	4083 lb
Dimensions	
Wheelbase	39 in
Length w/Bucket on Ground	127 in
Length w/o Bucket	99 in
Height to Top of Cab	77 in
Vehicle Width over Tires	60 in
Max Overall Height	146 in
Bucket Pin Height at Max Lift	112 in

BROKK 260

The perfect all-round machine.

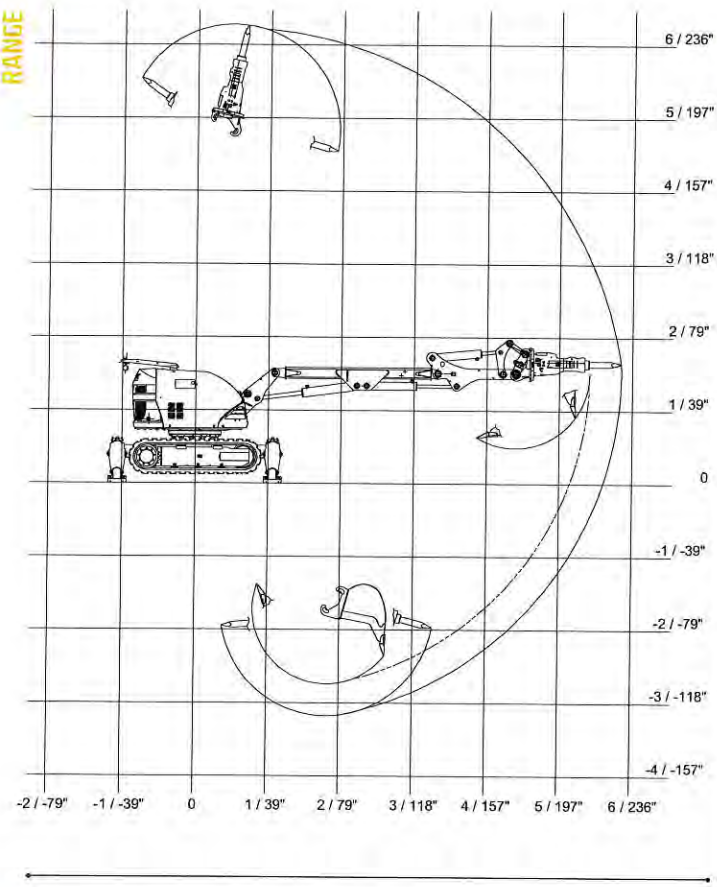
YEAR AFTER YEAR this is one of our most wanted demolition machine models, built to cope with the ever-increasing demands of the demolition industry. Since its original development in the mid 1970's, the Brokk 260 has an unmatched track record as the ideal all-around demolition machine. A powerful combination of reliable technology and continuous improvement from the basis of its worldwide reputation.

The Brokk 260 has exceptional capacity and remarkable hitting power. It can outperform much heavier conventional excavators yet is still agile and small enough to work in tight spaces. The only limits for this machine are those set by the imagination.

APPLICATIONS

Designed as an all-around demolition machine for construction applications and the cement or process industries.

RANGE



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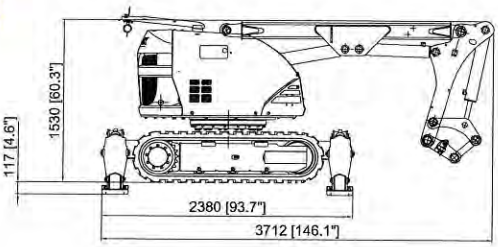
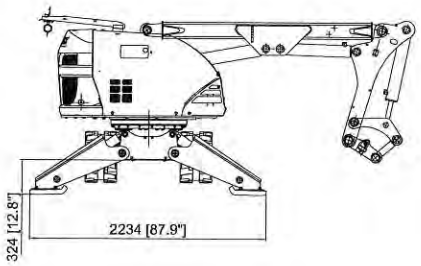
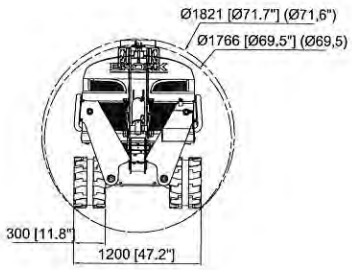






TECHNICAL DATA

Hydraulic breaker in illustrations SB 302
Load and stability diagram can be ordered from Brokk AB

Performance

Slewing speed	18 sec/360°
Transport speed, max.	2.7 km/h; 0.75 m/s; 1.7 mph
Incline angle, max.	30°

Hydraulic system

Hydraulic system capacity		90 l; 23.8 US gal
Pump type		Variable load-sensing piston pump
System pressure, standard		17.0 MPa; 2,466 psi
System pressure, max**		25 MPa; 3,626 psi
Oil flow max*	50Hz	100 l/min; 26.5 US gal/min
	60Hz	120 l/min; 31.7 US gal/min

Electric motor

Type	ABB
Output***	22 kW
Current***	49 A
Starting device	Soft start/Direct start

Control system

Control type	Portable control box
Signal code	Digital
Transfer	Cable/Radio

Weight

Weight of machine excluding attachment 3,050 kg; 6,724 lbs

Machine noise level

Sound power level Lwa, measured according to directive 2000/14/EC 93 dB(A)

*Max pump flow and max system pressure cannot be delivered at the same time as the engine will overload
**Option for some special attachments
***Valid for 400V/50Hz

TOOLS

Sullair Rivet Busters

The Power for Cutting Off Large Rivet Heads, Heavy Duty Chipping and Concrete Breaking

Applications Include:

- Bridge jobs
- Steel structure maintenance
- Railroad car repair
- Shipyards
- Petrochemical plants
- Demolition work

D-Handle with Inside Trigger
Handle design provides comfort and control to the operator in demolition applications.

Variable Throttle Control
Allows variable speed control for maximum production.

Muffler and Screened Inlet Bushing Standard
Provides quieter operation and filters the inlet from contaminating particles.

Interchangeable Parts Provide Flexibility
Interchangeable parts (except cylinder) reduce inventory and increase parts versatility.

Simplified Control Valve
Allows for smoother operation in dirty conditions through precisely engineered tolerances.

Lubrication
Rivet Busters require inline lubrication.

90-Day Parts Warranty
This Sullair warranty covers all tool parts against manufacturing defects.

MRB-8 & MRB-11 Rivet Buster Design Specifications

Model	MRB-8	MRB-11
Net Weight	30 lbs	33 lbs
Length	22½"	25½"
Shipping Weight	35 lbs	38 lbs
Bore and Stroke	1 3/16" X 8"	1 3/16" X 11"
Blows per Minute	1140	850
Air Consumption	44 cfm	50 cfm
Air Inlet	½" NPT	½" NPT
Chuck Size	11X Jumbo	11X Jumbo

MRB-8

MRB-11

Machines

» Articulated Trucks
» Asphalt Pavers
» Backhoe Loaders
» Cold Planers
» Compact Track and Multi Terrain Loaders
» Compactors
» Draglines
» Drills
» Electric Rope Shovels
» Feller Bunchers
» Forest Machines
» Forklifts
» Forwarders
» Harvesters
» Highwall Miners
» Hydraulic Excavators
» Hydraulic Mining Shovels
» Knuckleboom Loaders
» Material Handlers
» Motor Graders
» Off-Highway Trucks
» Pipelayers
» Road Reclaimers
» Skid Steer Loaders
» Skidders
» Surface Mining – Belt Systems
» Telehandlers
› TH255
› TH406
› TH407
› TH514C
› TH514
› TL642C
› TL642C with Stabilizers
› TL943C
› TL943C with Stabilizers
› TL1055C
› TL1255C
» Track Loaders
» Track-Type Tractors
» Tunnel Boring Machines
» Underground Mining – Belt Systems
» Underground – Hard Rock
» Underground – Longwall

TL1255C TELEHANDLER

Overview | Specifications | Benefits & Features | Standard / Optional Equip. | Work Tool Attachments | Machine Comparison

OVERVIEW

TL1255C Telehandler

The TL1255C is a highly versatile machine, designed to deliver maximum performance with traditional Cat reliability, durability and productivity in the toughest working conditions.

SPECIFICATIONS

Units: **US** | **Metric**

Engine	
Engine Model	Cat® C4.4 ACERT™, Tier 4 Interim
Gross Power (Basic)	142.1 hp
Weights	
Operating Weight	35860 lb

BENEFITS & FEATURES

Operator Station
The operator station provides comfort and protection with improved job site visibility and convenient, easier to use controls.
» Learn More

Ease of Operation
Ease of operation was extremely important in the design of the new TL1255C telehandler. The joystick is designed for comfort and efficiency.
» Learn More

Performance
The TL1255C delivers high performance to meet your specific job site needs.
» Learn More

TL1255C Telehandler
» Download Product Brochure

RELATED LINKS
» **Rent Telehandlers**
» **Find a Used Telehandler**

5460 (supersedes 5424) – 0506 – N3

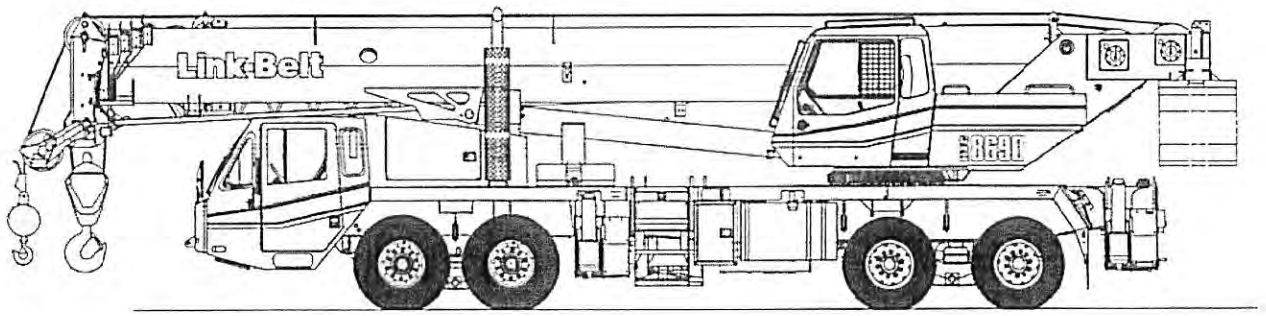
Technical Data

Specifications & Capacities

HTC 8690

Telescopic Boom Truck Crane

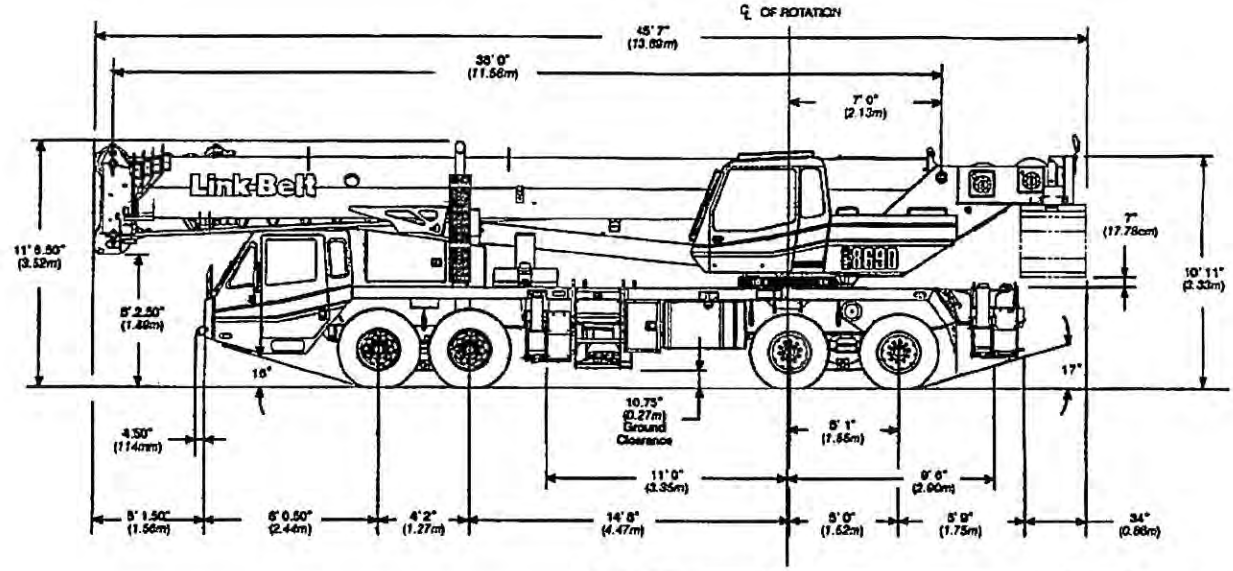
90 ton *(81.6 metric ton)*



MARR EQUIPMENT

100 years of reaching new heights

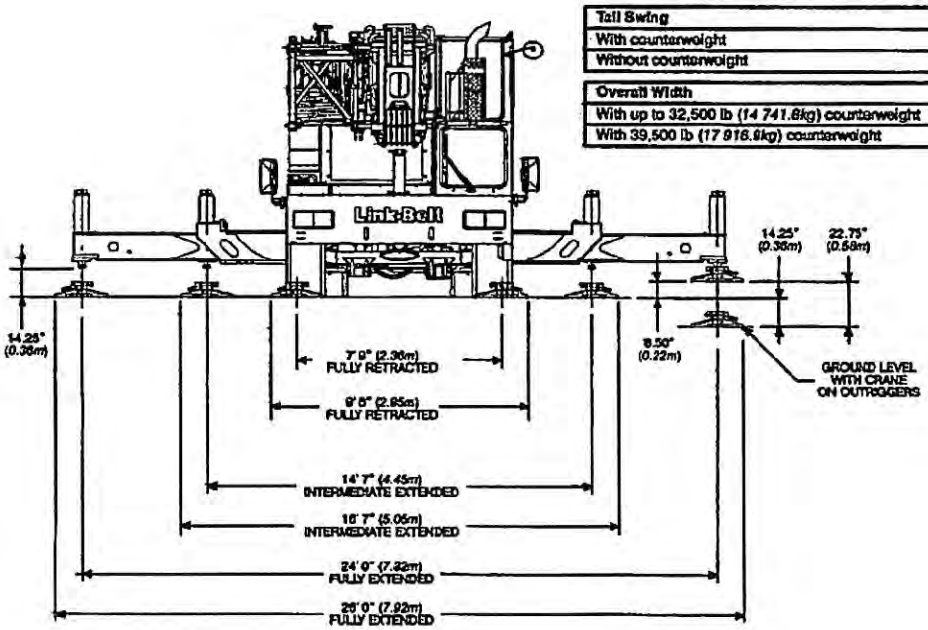
General Dimensions



Turning Radius	English	Metric
Wall to wall over carrier	48' 4"	14.7m
Wall to wall over boom	49' 2"	15.0m
Wall to wall over boom attachment	51' 0"	15.5m
Curb to curb	44' 1"	13.4m
Centerline of tire	43' 4"	13.2m

Tail Swing	English	Metric
With counterweight	13' 8"	4.2m
Without counterweight	13' 1"	4.0m

Overall Width	English	Metric
With up to 32,500 lb (14 741.6kg) counterweight	8' 6"	2.6m
With 39,500 lb (17 916.9kg) counterweight	11' 0"	3.4m



Not To Scale

MARR EQUIPMENT CORPORATION
One D Street
Boston, MA 02127
617-269-7200 Fax 617-598-0275
www.marrequipment.com

APPENDIX C:

Owner and Responsible Remediation Party Certification

FINANCE AND FACILITIES

Vice President's Office

Salem STATE UNIVERSITY

May 14, 2013

Kimberly N. Tisa
Region 1 PCB Coordinator
U.S. Environmental Protection Agency New England
5 Post Office Square, Suite 100
Mail Code: OSRR07-2
Boston, MA 02109-3912

RE: Written Certification for Document Filing for
Remediation of PCB-Contaminated Building Materials
Salem State University Library
360 Lafayette Street
Salem, Massachusetts

Dear Ms. Tisa:

In accordance with §761.61(a) (3) (E), Salem State University (SSU) will maintain a record of filings pertaining to the project involving dismantling of PCB-contaminated concrete masonry units (CMU), brick, concrete structural components, and other building materials from the former Library at SSU. The information to be kept on file will include: sampling plans, sample collection procedures, sample preparation procedures, extraction procedures, and instrumental/chemical analysis procedures used to assess or characterize PCB contamination. If alternate methods for chemical extraction and chemical analysis for site characterization are used, an addendum to this certification will be provided to the U.S. Environmental Protection Agency and shall include a statement that such a method will be used and that a comparison study has been completed that meets or exceeds the requirements of Subpart Q, §761.326. These filings will be available for EPA inspection and will be kept at the following address:

Salem State University
352 Lafayette Street
Salem, MA 01970

Sincerely,

Andrew Soll
Vice President, Finance and Facilities

352 Lafayette Street | Salem, Massachusetts 01970-5353 | salemstate.edu | 978.542.6120 FAX 978.542.6164

The Commonwealth of Massachusetts
Executive Office for Administration and Finance
Division of Capital Asset Management and Maintenance
One Ashburton Place
Boston, Massachusetts 02108
Tel: (617) 727-4050
Fax: (617) 727-5363

DEVAL L. PATRICK
GOVERNOR

TIMOTHY P. MURRAY
LIEUTENANT GOVERNOR

GLEN SHOR
SECRETARY, ADMINISTRATION & FINANCE

CAROLE CORNELISON
COMMISSIONER

May 24, 2013

Kimberly N. Tisa
Region I PCB Coordinator
U.S. Environmental Protection Agency New England
5 Post Office Square, Suite 100
Mail Code: OSRR07-2
Boston, MA 021 09-3912

RE: Written Certification for Document Filing for Remediation of PCB Contaminated Building Materials
Salem State University Library
360 Lafayette Street
Salem, Massachusetts

Dear Ms. Tisa:

In accordance with 40 CFR § 76l(a)(3)(E), the Division of Capital Asset Management and Maintenance (DCAMM) is the responsible party conducting the dismantling of PCB-contaminated building materials at the former Salem State University Library. The former Salem State library is located at 360 Lafayette Street, Salem, Massachusetts.

The project involves the dismantling of the remaining former Salem State University Building. Portions of concrete masonry units, brick walls, concrete structural components, as well as other building materials have been impacted by the presence of PCB-containing caulk and mastic. All records associated with the project will be kept on file at the following location:

Salem State University
352 Lafayette Street
Salem, MA 10970

The information kept on file will include: sampling plans, sample collection procedures, sample preparation procedures, extraction procedures, and instrumental/chemical analysis procedures used to assess or characterize PCB contamination. If alternate methods for chemical extraction and chemical analysis for site characterization are used, an addendum to this certification will be provided to the U.S. Environmental Protection Agency and shall include a statement that such a method will be used and that a comparison study has been completed that meets or exceeds the requirements of Subpatl Q, §761.326 and that the associated records are on file.

If you have any questions or concerns regarding this project, or if we may be of additional assistance regarding the project, please do not hesitate to contact Mark Swingle at 61 7-727-4030, ext. 474

Sincerely,

Mark Swingle, Project Manager

APPENDIX D:

Lab Certification (Contains 1 CD)

APPENDIX E:

State and Local Regulatory Notification

The Commonwealth of Massachusetts

Executive Office for Administration and Finance
Division of Capital Asset Management and Maintenance
One Ashburton Place
Boston, Massachusetts 02108
Tel: (617) 727-4050
Fax: (617) 727-5363

DEVAL L. PATRICK
GOVERNOR

TIMOTHY P. MURRAY
LIEUTENANT GOVERNOR

GLEN SHOR
SECRETARY, ADMINISTRATION & FINANCE

CAROLE CORNELISON
COMMISSIONER

May 24, 2013

Mr. Larry Ramdin, RS/REHS, CHO, CP-FS
Health Agent
120 Washington Street (4th Floor)
Salem, MA 01970

RE: Written Notification for Document Filing for Remediation of PCB Contaminated Building Materials
Salem State University Library
360 Lafayette Street, Salem, Massachusetts

Dear Mr. Ramdin:

The Division of Capital Asset Management and Maintenance (DCAMM) has prepared a plan for the completion of the demolition of the above referenced Library Building. The work includes removal of polychlorinated biphenyl (PCB) containing building materials. We are informing you of this plan in accordance with the notification requirements in Title 40 Code of Federal Regulations Section 761.61(a)(3)(i). The Plan is available upon your request and is available for viewing at the following location:

Salem State University
352 Lafayette Street
Salem, MA 01970

If you have any questions or concerns regarding the demolition, or if we may be of additional assistance regarding the project, please do not hesitate to contact Mark Swingle at 617-727-4030, ext. 474.

Sincerely,
Division of Capital Asset Management and Maintenance

Mark Swingle, Project Manager

The Commonwealth of Massachusetts

Executive Office for Administration and Finance
Division of Capital Asset Management and Maintenance
One Ashburton Place
Boston, Massachusetts 02108
Tel: (617) 727-4050
Fax: (617) 727-5363

DEVAL L. PATRICK
GOVERNOR

TIMOTHY P. MURRAY
LIEUTENANT GOVERNOR

GLEN SHOR
SECRETARY, ADMINISTRATION & FINANCE

CAROLE CORNELISON
COMMISSIONER

May 24, 2013

Mr. Michael Hurley
Bureau of Waste Prevention
Massachusetts Department of Environmental Protection
One Winter Street
Boston, MA 02108

RE: Written Notification for Document Filing for Remediation of PCB Contaminated Building Materials
Salem State University Library
360 Lafayette Street, Salem, Massachusetts

Dear Mr. Hurley:

The Division of Capital Asset Management and Maintenance (DCAMM) has prepared a plan for the completion of the demolition of the above referenced Library Building. The work includes removal of polychlorinated biphenyl (PCB) containing building materials. We are informing you of this plan in accordance with the notification requirements in Title 40 Code of Federal Regulations Section 761.61(a)(3)(i). The Plan is available upon your request and is available for viewing at the following location:

Salem State University
352 Lafayette Street
Salem, MA 01970

If you have any questions or concerns regarding the demolition, or if we may be of additional assistance regarding the project, please do not hesitate to contact Mark Swingle at 617-727-4030, ext. 474.

Sincerely,
Division of Capital Asset Management and Maintenance

Mark Swingle, Project Manager

APPENDIX F:

Sample Location Plans (Contains 1 CD)